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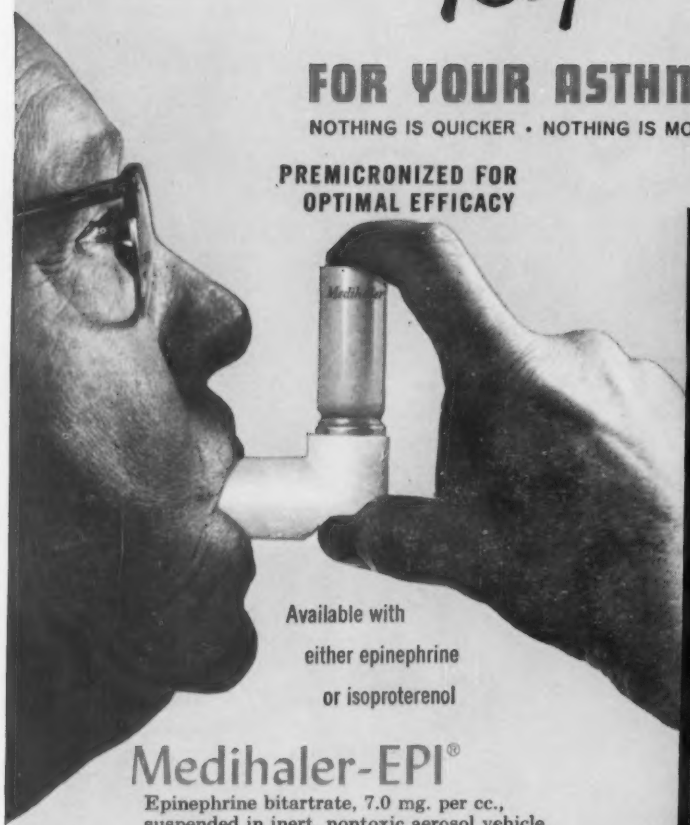

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ESTABLISHED 1932

The International Journal of Medicine in Industry

JULY, 1959
VOLUME XXVIII
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CONTENTS

The Health of People Who Work 307
L. A. Hollingsworth

The Effective Use of Human Resources 308
Arthur S. Flemming

The Challenge of Occupational Health 313
A. J. Hayes

The Challenge of the Small Plant 317
A. J. Hayes

The Role of the Professional Society in Industrial Hygiene 320
Charles R. Williams, Ph.D.

Role of Medical Society in Occupational Health 322
Kieffer Davis, M.D.

The Role of the Dental Society in Occupational Health .. 325
Harry H. Dougherty, D.D.S.

The Role of the Nursing Organization in Occupational Health 327
Katharine A. Lembright, R.N.

The Role of Organized Labor in Occupational Health ... 329
William A. Sawyer, M.D.

The Role of the Official Agency in Occupational Health .. 332
Henry A. Holle, M.D.

Occupational Health Programs for Agricultural and Other Nonplant Workers 335
Clyde B. Berry, Ph.D.

Industrial Health Clinics 339
Leonard Arling, M.D.

The Birmingham Industrial Council—Its Role in the Health Program of Small Plants 341
Leon Smelo, M.D.

What Have Voluntary Health Agencies to Offer? 344
James E. Perkins, M.D.

Expectations of Management Regarding Occupational Health 347
Leo Wade, M.D.

Editorials: Where is the Manpower to Come From? 349
B. Dixon Holland, M.D.

Preventive Mental Health 350
James C. Conant, Ph.D.

Personal News & Notes 4, 6, 8

Comment and Opinion 45

Index of Advertisers 50

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PERSONAL NEWS AND NOTES

Ludwig G. Lederer, M.D.

James J. Hutson, M.D.

LUDWIG G. LEDERER, M.D., Medical Director of Capital Airlines, was installed as President of the Aerospace Medical Association at the close of its 30th annual meeting in Los Angeles on April 29. He succeeds BRIGADIER GENERAL M. SAMUEL WHITE, USAF, of Arlington, Virginia.

The association also authorized DR. LEDERER to select a Washington site as national headquarters for its international membership of 2,500.

With Capital Airlines since 1942, DR. LEDERER is nationally known as an authority in medical physiology and as a specialist in aviation medicine. He has written numerous papers on the subjects and is coauthor of "Syllabus on Biological Science."

He has introduced many innovations in flight such as red lighting in the pilots' compartments to improve night-flying vision. He holds degrees from Northwestern University and the University of Illinois.

The Aerospace Medical Association was formerly known as the Aero Medical Association and was started in 1929. The society changed the name in anticipation of man's intended venture into space.

JAMES J. HUTSON, M.D., has been appointed Medical Director of Eastern Airlines Company, Miami, Florida, base. He has been a flight surgeon with Eastern since 1953 and in January became assistant on the staff of HOWARD K. EDWARDS, M.D., Eastern's Medical Director whose untimely death was reported in the June issue.

DR. HUTSON was graduated from Duke University Medical School in 1944. He served with the Navy at Jacksonville and in the Pacific. He returned to Miami in 1946 and entered private practice in association with his father for the next four years.

In 1950 he was recalled to active duty and reported to the Pensacola Naval Air Station's School of Aviation Medicine where he trained to be a flight surgeon. Transferring to the Brunswick, Maine, Naval Air Station, he served as flight surgeon there until 1952 when he returned to Miami and again began private practice. He remained in the Naval Reserve and recently was selected for promotion to Commander.

In 1953, he joined Eastern's medical department in Miami where he has been associated with DR. EDWARDS for six years. Last January (1959) he was promoted to Assistant Medical Director.

DR. HUTSON is on the board of directors of Victoria Hospital Corp., Miami; Lighthouse of the Blind, Miami and the American Cancer Society, Miami Chapter. He is a member of the Dade County Medical Association, Florida Medical Association, American Medical Association, Airline Medical Directors Association and Aero Medical Association.

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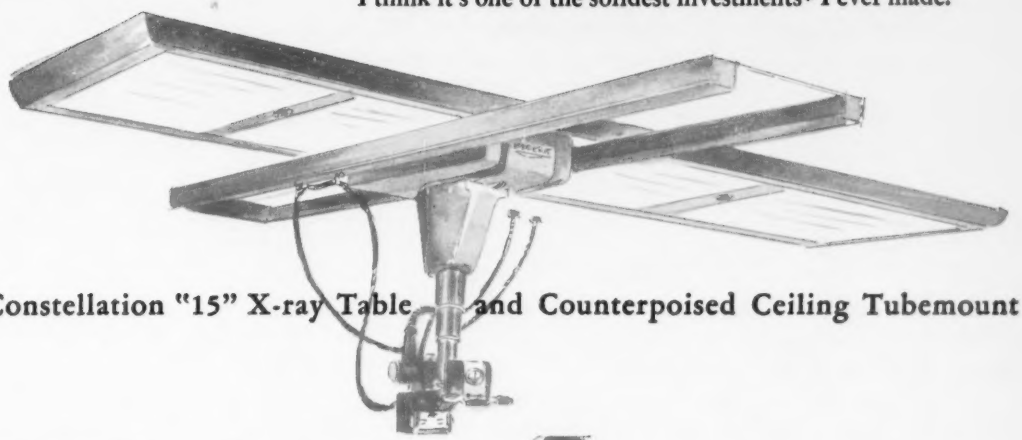

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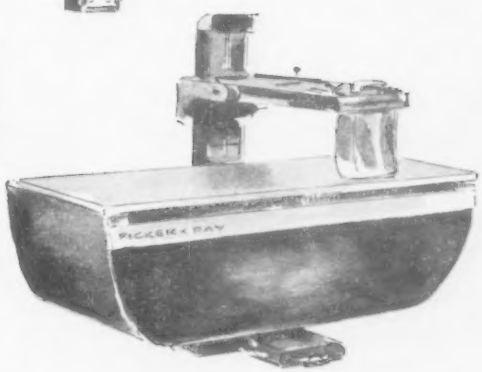

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CHESTER C. GUY, M.D., 5800 Stony Island Avenue, Chicago 37, Midway 3-9200.

FRANCIS N. KIMBALL, M.D., has been appointed General Director of Medical Activities for Eastern Air Lines with headquarters in New York City. DR. KIMBALL has been an aeromedical consultant to Eastern since 1946 and Medical Director of American Export Lines since 1927. He was a pursuit pilot and aviation instructor during World War I and a pioneer in the field of aviation medicine. He is a specialist in urology and has served on the staffs of leading hospitals in New York City, where he is active in many medical societies in both fields. He originally organized the medical department of American Export Lines and when its subsidiary, American Export Airlines, was formed in 1941, established its medical staff and served as its Medical Director. He is a Colonel in the Medical Corps, U.S. Air Force Reserve (Retired). DR. KIMBALL earned his M.D. degree from University of Michigan Medical School, Ann Arbor, 1923.

LESTER H. EISENDORF, M.D., was elected President of the Oregon Academy of Occupational Medicine and Surgery at the group's annual meeting last May. Other officers are NORMAN DAVID, M.D., Professor and head of the Department of Pharmacology, University of Oregon Medical School, Vice President, and RALPH SULLIVAN, M.D., Director of Occupational Health, Oregon Board of Health, Secretary-Treasurer.

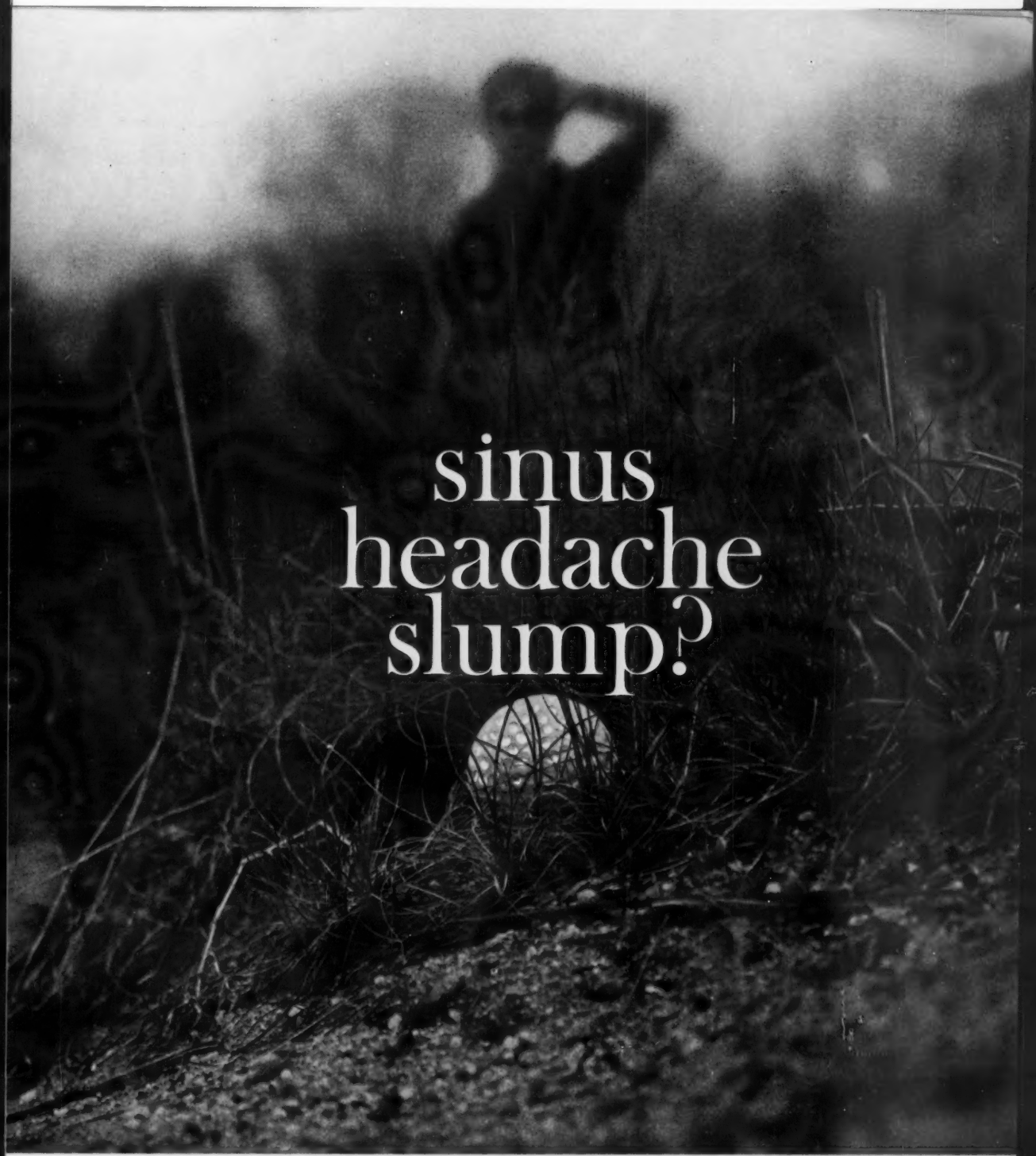
PROFESSOR DOCTOR JOSÉ PEDRO REGGI, President of the Argentine Society of Occupational Medicine and Honorary President of the American Union of Occupational Medicine, has been named a Corresponding Member of the German-Spanish-American Academy of Medical Sciences. This is the first time that the title has been given to an Argentine professional.

E. GIFFORD UPJOHN, M.D., President of the Upjohn Company of Kalamazoo, Michigan, was appointed to succeed the late MICHAEL GORMAN of Flint, Michigan, to the Board of Governors of the Institute of Industrial Health at the University of Michigan. GEORGE A. JACOBY, Director of Personnel Relations for General Motors Corporation, was appointed to succeed retired Medical Director of General Motors, MAX BURNELL, M.D., on the Board.

ROBERT C. GOW, M.D., has been appointed Associate Medical Director of the nutritional and pharmaceutical division of Mead Johnson and Company, Evansville, Indiana. DR. GOW is a graduate of the University of Pittsburgh School of Medicine. He specialized in pediatrics for five years before joining Mead.

W. GEORGE PARKS, Director of the Gordon Research Conferences announces that the annual conference on Toxicology and Safety Evaluations will be held August 10 through 14, 1959, at the Kimball Union Academy, Meriden, New Hampshire. The Gordon Conferences were established to stimulate research in universities, research foundations and industrial laboratories, through informal meetings consisting of lectures and discussion groups.

DON D. IRISH is Chairman of the Toxicology and Safety Evaluations session of the Conference, at which the following papers will be presented: "Basic Mechanisms of Percutaneous Absorption" — IRVIN BLANK; "Physical-Chemical Factors in the Development of Barrier Materials" — ALBERT A. KONDRITZLER; "Pulmonary Tissue Changes Induced by Inhaled Industrial Dust" — G. W. H. SCHEPERS; "Deriving Tentative Threshold Limits from Experimental Data" — HENRY F. SMYTH; "Quantitative Aspects of Chemical Carcinogenesis" — CHARLES KENSLER; "Quantitative Aspects of Radioisotope Carcinogenesis" — MIRIAM P. FINKEL; "Extension of Laboratory Toxicological Data to the Field of Industrial Medicine" — EUGENE H. KRACKOW; "Biological Effects of Microwave Energy" — GEORGE M. KNAUF; "The Biological Effects of Chemical Agents on *In Vitro* Systems" — JOSEPH H. GAST; "Interpretation of Toxicological Data in Animals for the Determination of Acceptable Levels for Intake in Man" — H. VAN GENDEREN; "Experimental and Clinical Toxicity of Cancer Chemotherapeutic Agents" — FREDERICK S. PHILLIPS and STEPHEN S. STERNBERG, M.D.; "Some Problems in Evaluation of the Safety of Drugs" — WILLIAM LAYTON, M.D.; Others taking part in the discussions are: DAVID W. FASSETT, M.D.; LEONARD J. VINSON; JOHN A. ZAPP, JR.; KINGSLEY KAY; CHARLES R. WILLIAMS, M.D.; C. BOYD SHAFFER; W. CLARK COOPER; NORTON NELSON; HORACE GERARDE; BERNARD L. OSER and GEOFFREY WOODARD.



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resolve summer sinus headache **Sinutab***

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EDWARD C. HOLMBLAD, M.D., has been appointed Medical Director of Public Aid for the State of Illinois. The appointment was made by the Medical Advisory Board of Public Health of the State of Illinois.

DR. HOLMBLAD is retiring as managing director of the Industrial Medical Association which position he has held for the last 18 years.

He has been in demand through the years as the principal speaker at conferences and conventions of medical leaders throughout the United States, in the Hawaiian Islands and in European countries.

He was graduated from West Aurora High School, attended Lake Forest College in 1912-14 and was graduated from the University of Chicago College of Medicine in 1918. He interned at the Cook County Hospital from 1918-20 and later became established as a physician and surgeon in Chicago.

From 1921 until 1945 DR. HOLMBLAD was Regional Chief Surgeon for the Railway Express Agency and later was Surgeon for the Rock Island, the C. and E. J. and the Santa Fe Railroads.

GILBEART H. COLLINGS, JR., M.D., has been appointed to the new position of Associate Director of the Medical Department of Standard Oil Company (Indiana).

DR. COLLINGS has been Medical Director of Crane Co., Chicago, since 1957, following service with the U.S. Army Medical Corps at the Army Environmental Health Laboratory. Previously he had been with the Tennessee Valley Authority as chief of the occupational health branch, and with Bethlehem Steel Co.

He is consultant to the Surgeon General's Army Environmental Health Authority in the field of occupational medicine. He also is a member of the founders group of specialists in occupational medicine, being certified by the American Board of Preventive Medicine in 1955.

DR. COLLINGS was named a Fellow of Industrial Medical Association, American Public Health Association, and American Academy of Occupational Medicine. He is a member of the American and Illinois Medical Associations, Chicago Medical Society, and is a former director of the American Industrial Hygiene Association. He also is a member of the Medical Directors Club of Chicago and Medical Directors Forum.

Following his undergraduate work at Clemson College in his native state of South Carolina, DR. COLLINGS attended Emory University School of Medicine, Atlanta, Ga., where he received his medical degree. He interned at Maryland General Hospital, Baltimore, and took graduate work at Johns Hopkins University School of Hygiene and Public Health. He has published a number of articles in the field of industrial medicine.

IVAN L. GAILEY, M.D., has been appointed Medical Director of the new American Public Life Insurance Company, Indianapolis, Indiana. DR. GAILEY received his B.A. degree from Washington and Jefferson College, his medical degree from Albany (N. Y.) Medical College and interned at Methodist Hospital, Gary, Indiana.

MORTON M. MEDVENE, M.D., was recently named Chief Medical Officer of the Reading Railroad succeeding ADOLPH NEUPAUER, M.D., retired. DR. MEDVENE has served since July 1, 1951, as Medical Examiner in charge of District No. 2 of the Reading system, at Reading. He joined the railroad's medical staff in 1947 as a medical examiner at the Reading district office.

DR. NEUPAUER retired after 34 years of service with the company's medical staff. He joined the railroad in 1924 as a medical examiner at Pottsville, and moved to the Philadelphia office 10 years later. He was named Chief Medical Officer in 1945.

DR. MEDVENE was educated at the University of Pennsylvania, where he received both his bachelor of arts and medical degrees. He served as a resident physician at the Stetson Hospital, Philadelphia, 1939-40.

STANLEY B. CHAPMAN, M.D., has been appointed Medical Director of the Bath (N. Y.) plant of Westinghouse Electric Company. He succeeds JAMES J. SANFORD, M.D., who has been Medical Director since 1951. DR. CHAPMAN was graduated from Colgate University and Long Island College of Medicine. After internship, he spent two years of active duty with the Army and later was assigned to the Veteran's Administration Hospital in Bath. DR. CHAPMAN will retain a private practice together with his duties at Westinghouse.

BERT W. BROOKS, M.D., has accepted the position of Director of Industrial Health with the Upjohn Company, Kalamazoo, Michigan. DR. BROOKS has been active in industrial medicine for several years. He currently is Medical Director of M & M Candy Company.

Died

A. C. REMINGTON, M.D., Medical Director of Airesearch Manufacturing Company, from a heart attack on May 6, 1959.

Born June 3, 1915 in Delta, Colorado, DR. REMINGTON received his Medical Degree from Harvard Medical School in 1940. After a year of residency at Rochester (N.Y.) General Hospital, he took a residency at the Psychiatric Institute of New York City until his entry in the Air Corps in 1943.

After three years in the Air Corps including duty in the South Pacific, he returned to work in psychoanalysis at the Compton Sanitarium and with the Los Angeles Psychiatric Institute until his employment with Airesearch in 1950.

He was a member of the Governor's Committee on the Physically Handicapped from 1954 to his death and in 1957 received a citation from the President's Committee on the Physically Handicapped.

DR. REMINGTON was awarded a Fellowship in the Industrial Medical Association in 1955, was President of the Industrial Section of the Los Angeles Medical Association in 1957 and Secretary of the Western Industrial Medical Assocation from 1957 to his death.

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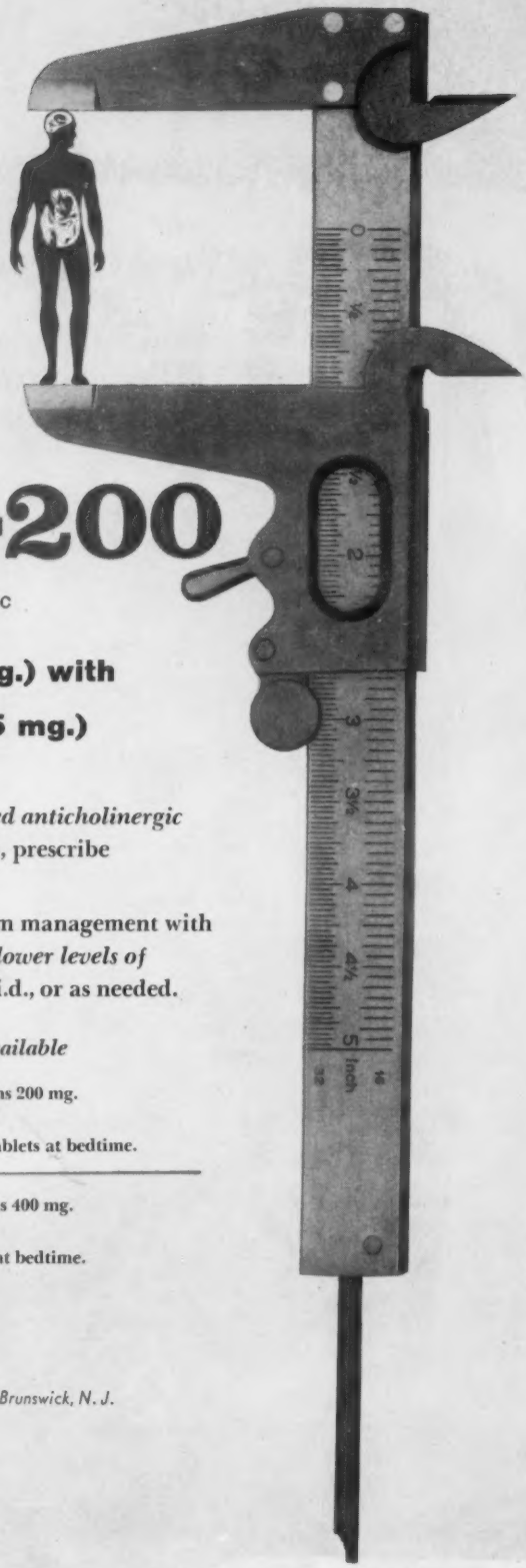

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These studies have also shown that 'Stelazine' is effective in low b.i.d. dosage (2 to 4 mg. daily) and that it is often effective in patients who have failed to respond to meprobamate, prochlorperazine, phenobarbital, mepazine, chlorpromazine, or promazine.

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> Patients' "spirits brightened and initiative and interest picked up considerably in contrast to their pretreatment inertia."[1]

> 'Stelazine' "seemed to have a capacity to restore normal drive in conditions characterized by decreased motor activity and mental apathy."[2]

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REFERENCES: 1. Gearren, J.B.: Dis. Nerv. System *20*:66 (Feb.) 1959. 2. Margolis, E.J., et al.: Scientific Exhibit at 12th Clinical Meeting of the American Medical Association, Minneapolis, Dec. 2-5, 1958. 3. Phillips, F.J., and Shoemaker, D.M.: *ibid.* 4. Ayd, F.J., Jr.: Clin. Med. *6*:387 (Mar.) 1959. 5. Tedeschi, D.H., et al.: in *Trifluoperazine: Clinical and Pharmacological Aspects*, Philadelphia, Lea & Febiger, 1958, pp. 23-33.

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salicylate benefits with minimal salicylate drawbacks

Rapid and prolonged relief—with less intolerance.

The analgesic and specific anti-inflammatory action of BUFFERIN helps reduce pain and joint edema—comfortably. BUFFERIN caused no gastric distress in 70 per cent of hospitalized arthritics with proved intolerance to aspirin. (Arthritics are at least 3 to 10 times as intolerant to straight aspirin as the general population.[1])

No sodium accumulation. Because BUFFERIN is sodium free, massive dosage for prolonged periods will not cause sodium accumulation or edema, even in cardiovascular cases.

Each *sodium-free* BUFFERIN tablet contains acetylsalicylic acid, 5 grains, and the antacids magnesium carbonate and aluminum glycinate.

Reference: 1. J.A.M.A. 158:386 (June 4) 1955.

ANOTHER FINE PRODUCT OF BRISTOL-MYERS

Bristol-Myers Company, 19 West 50 Street, New York 20, N. Y.

for dry, red, scaly, cracked, soap-abused hands

acid-mantle®

CREME pH 4.2 – LOTION pH 4.5 DOME

The normal, protective acid mantle of the skin, which has been removed by washing with soap and detergents, is instantly restored and maintained by ACID MANTLE Creme and Lotion, and normal physiological function and appearance return to the skin.

Creme in 1 oz. tubes, 4 oz., 1 lb. and 5 lb. jars. Lotion in 4 oz. squeeze bottles, 1 pint, and ½ gallon

Sig.: Apply after wet work and after washing hands. Samples and literature on request.

Stops the Flame of Skin Inflammation . . .

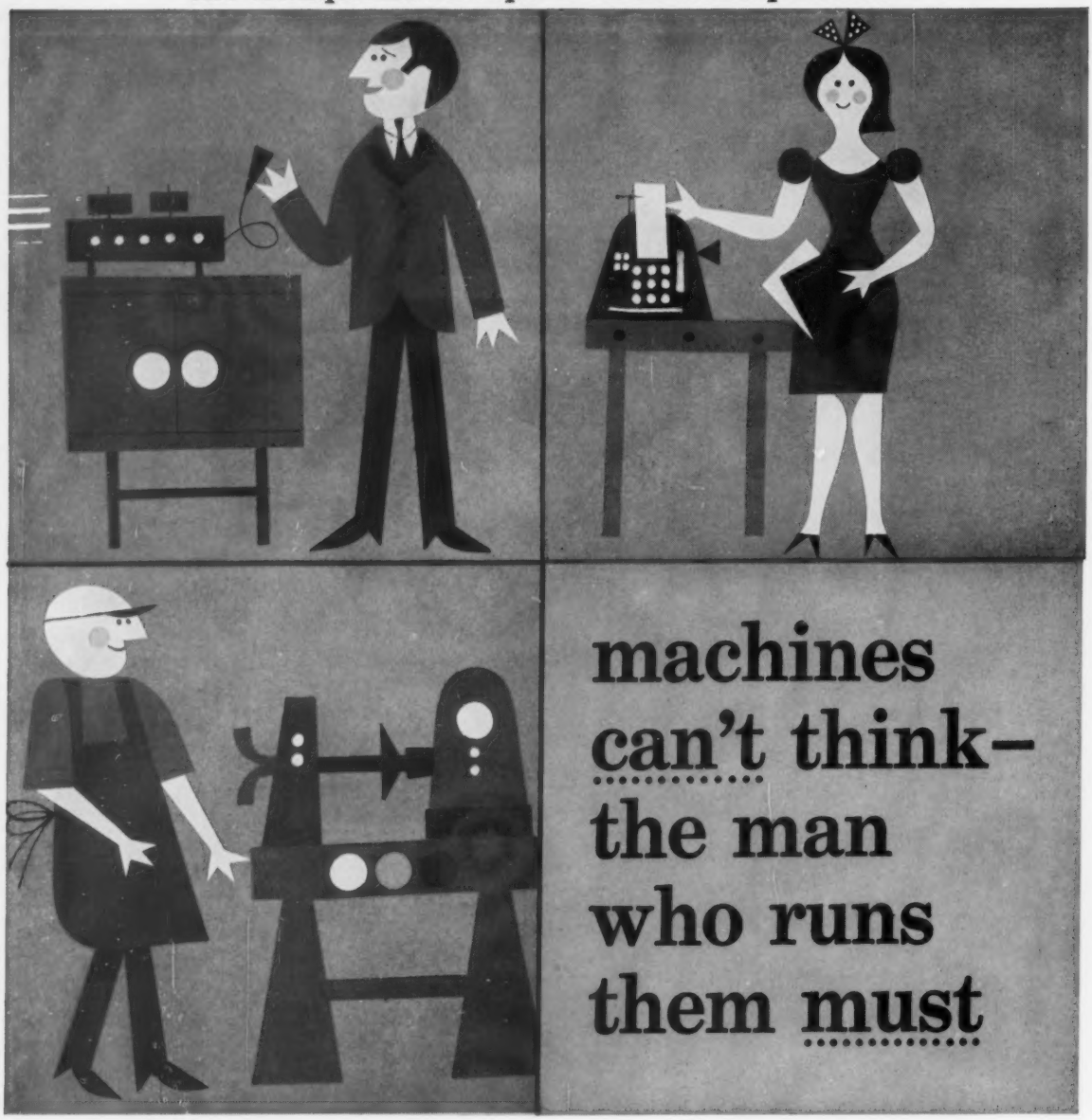
domeboro® tabs pH 4.2

DOME

THE MODERN BUROW'S SOLUTION used all over the world . . . for contact dermatitis due to alkalis, chemicals, oils, soaps, plastics, etc. Also in powder packets.

DOME CHEMICALS INC. NEW YORK 23 • LOS ANGELES 46
In Canada: 2765 Bates Rd., Montreal

the tranquilizer unique in industrial practice



machines can't think– the man who runs them must

ATARAX®

(brand of hydroxyzine)

Relieves anxiety without impairing judgment. With ATARAX, the employee being treated for emotional disturbances "retains full consciousness . . . but his reactions have become those of a completely balanced individual."[2]

ATARAX is safe
even in amounts several times the average therapeutic dose.[3]

"is especially well-suited for ambulatory neurotics who must work, drive a car or operate machinery."[1]

Dosage: Adults, one 25 mg. tablet or 1 tbsp. Syrup q.i.d. Children, 1 or 2 10 mg. tablets, or 1 or 2 tsp. Syrup t.i.d.

Supplied: Tiny 10 mg., 25 mg., and 100 mg. tablets, bottles of 100. Syrup, pint bottles. Parenteral Solution, 10 cc. multiple-dose vials.

References: 1. Ayd, F. J., Jr.: New York J. Med. *57*:1742 (May 15) 1957. 2. Bayart, J.: Presented at the International Congress of Pediatrics, Copenhagen, Denmark, July 22-27, 1956. 3. Cohen, S.: Am. Pract. & Digest Treat. *8*:946 (June) 1957.

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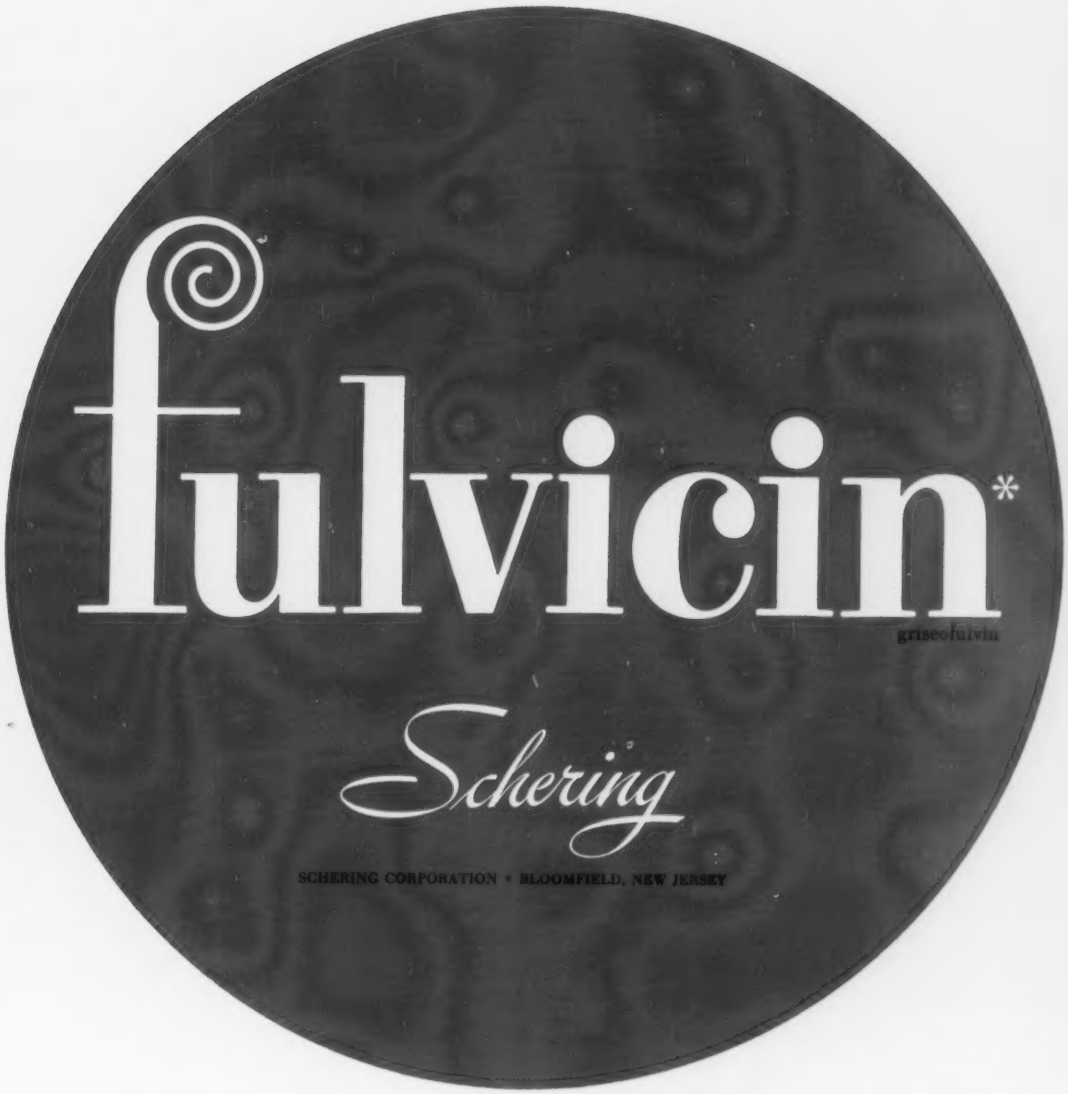
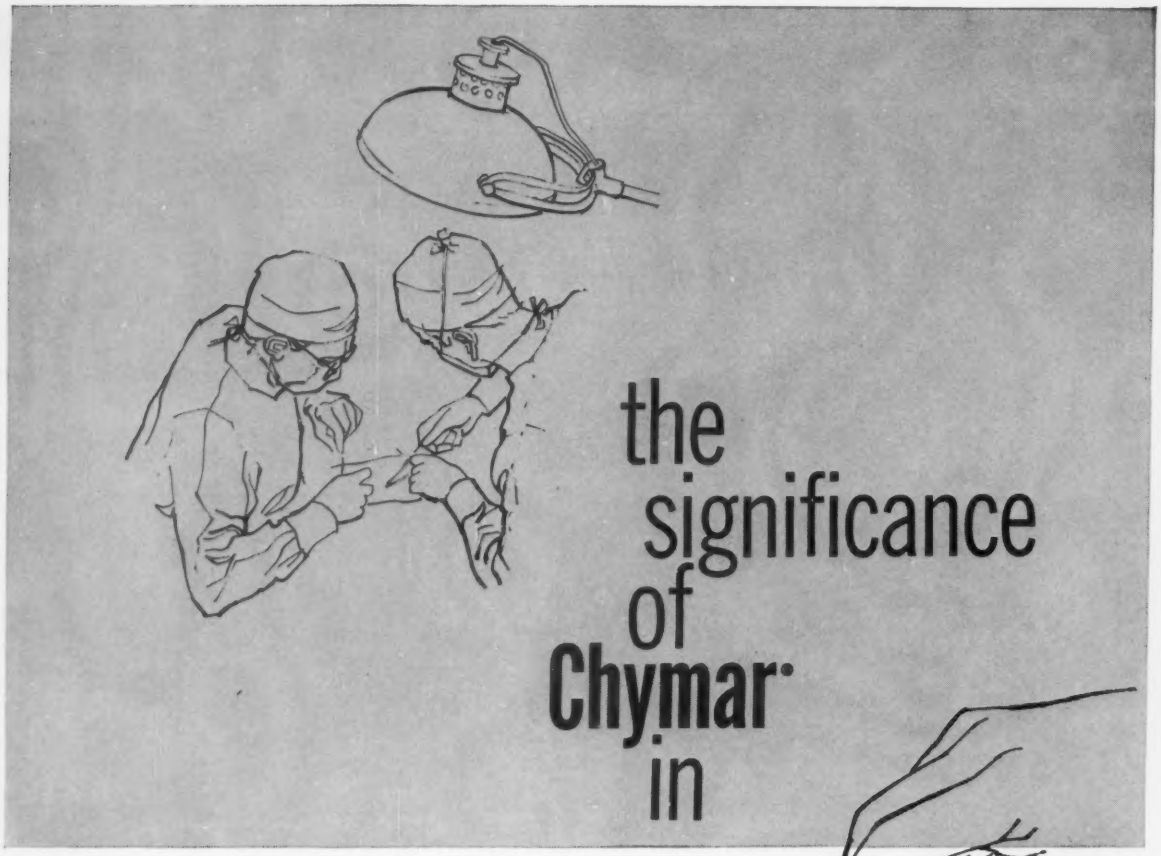
Division, Chas. Pfizer & Co., Inc.
Science for the World's Well-Being

the first *oral* antifungal antibiotic for ringworm



soon available

*T.M. 5-224



the significance of Chymar® in SURGERY

Chymar helps reduce inflammation and provides rapid absorption of edema and blood extravasates that often follow surgical procedures. Chymar also benefits the patient's general condition. Pain is often relieved within hours and the need for narcotics and analgesics markedly reduced. When given at an early stage, Chymar acts as a prophylactic in helping prevent inflammation and swelling.

Dosage: Inject 0.5 cc. before operating, then 1 cc. every 8-12 hours for 24 hours, followed by 0.5 cc. once or twice daily depending on the patient's progress.

Supplied: 5 ml. multiple dose vials. Each ml. contains 5,000 Armour Units. Available as Chymar Aqueous or Chymar in Oil.

CHYMAR *Aqueous* • *crystallized chymotrypsin in sodium chloride injection*

• the only one-vial aqueous solution of chymotrypsin in pure, crystallized state • no known incompatibilities • sensitivity to chymotrypsin is uncommon • vehicle devoid of allergenic properties

ARMOUR

ARMOUR PHARMACEUTICAL COMPANY — KANKAKEE, ILLINOIS / *a leader in biochemical research*

Spray on rapid and profound relief of pain...

1st, 2nd and 3rd degree burns, cuts, lacerations and abrasions . . .

ONLY
AMERICAINE (Aerosol, Ointment and Liquid) contains 20% dissolved benzocaine—MOST POTENT*—LEAST TOXIC* of topical anesthetics.
*References on request
Americaine
AEROSOL

Americaine® AEROSOL

"By stopping the pain, shock apparently is eliminated or minimized."[1] Every plant should have Americaine Aerosol for emergency use.

- **relieves pain in 2-3 minutes . . . lasts 4-6 hours**
- **easy to apply . . . covers large areas quickly**
- **water-soluble, bacteriostatic, sanitary**
- **excellent for pre-debridement of abrasions, etc.**
- **no sensitivity in over 12,600 published cases**

1. Kuba, E. F.: First Stage Treatment of Burns and Prevention of Shock, Indust. Med. 12:369-371 (Aug.) 1958.

Send for literature . . .

ARNAR-STONE LABORATORIES, INC./ Mt. Prospect, Illinois

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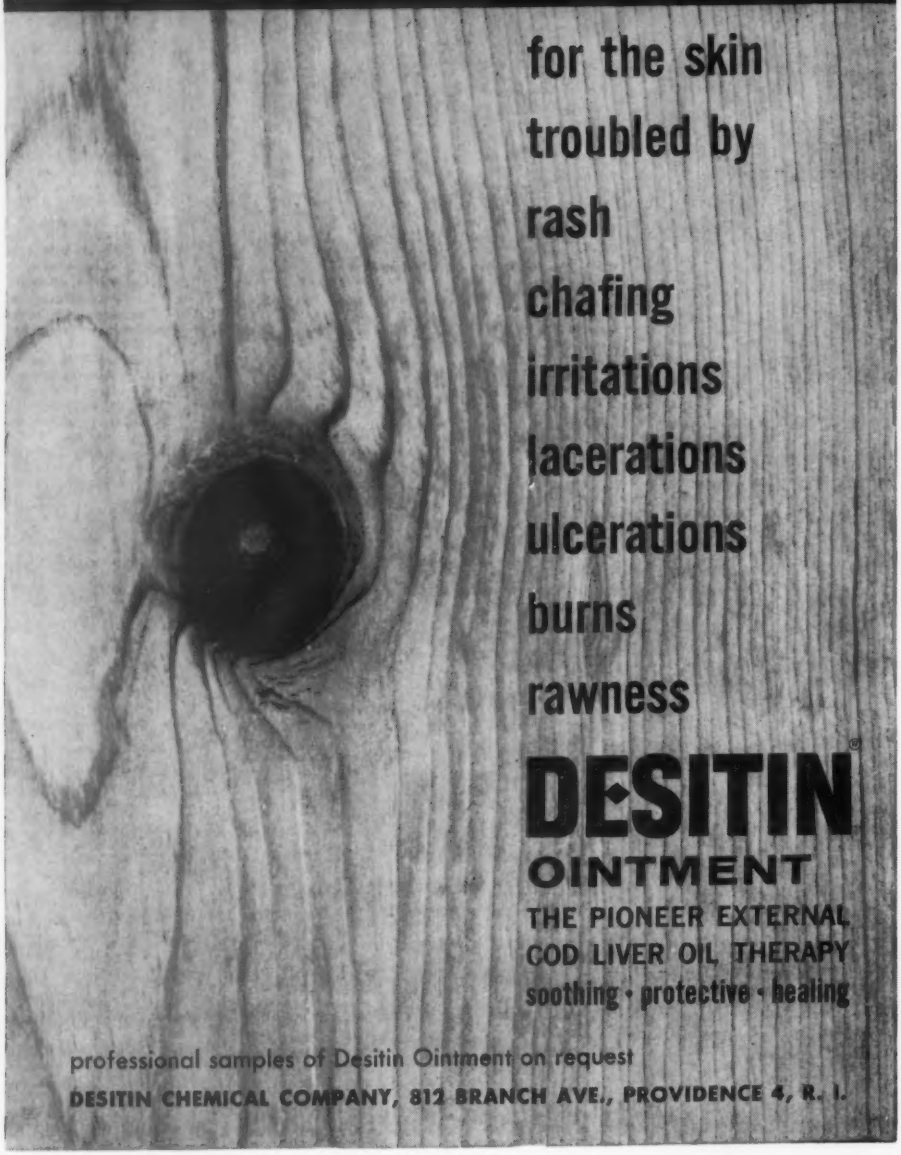
THERAPY



for the skin
troubled by
rash
chafing
irritations
lacerations
ulcerations
burns
rawness

DESITIN®
OINTMENT
THE PIONEER EXTERNAL
COD LIVER OIL THERAPY
soothing • protective • healing

professional samples of Desitin Ointment on request
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to relieve pain of dysmenorrhea . . .

PAIN

remember **Zactirin**®

Ethoheptazine Citrate with Acetylsalicylic Acid, Wyeth

ZACTIRIN will return many patients suffering from the pain of dysmenorrhea to normal physical activity. Its analgesic effect is equivalent to that of codeine, yet it is non-narcotic, hence has no addiction liability. Side-reactions are mild and low in incidence.

Supplied: Tablets, bottles of 48. Each tablet contains 75 mg. of ethoheptazine citrate and 325 mg. (5 grains) of acetylsalicylic acid.

Wyeth®

Philadelphia 1, Pa.

KENACORT

SQUIBB TRIAMCINOLONE

for all your patients starting on corticoids

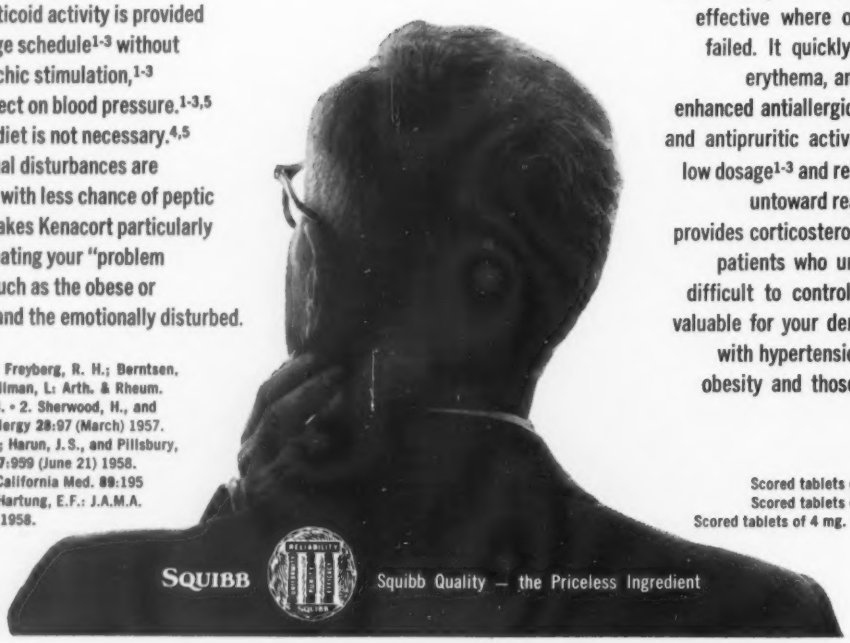
Kenacort safely starts your patients off right — with all the benefits of systemic corticosteroid therapy and few side effects to worry about. Increased corticoid activity is provided on a low dosage schedule[1-3] without edema,[1-4] psychic stimulation,[1-3] or adverse effect on blood pressure.[1-3,5] A low sodium diet is not necessary.[4,5] Gastrointestinal disturbances are negligible[2,4,5] with less chance of peptic ulcer.[4] This makes Kenacort particularly valuable in treating your "problem patients" — such as the obese or hypertensive and the emotionally disturbed.

for all your patients with dermatoses requiring corticoids

Kenacort, particularly in treating inflammatory skin conditions, has proved effective where other steroids have failed. It quickly alleviates itching, erythema, and irritation with its enhanced antiallergic, anti-inflammatory and antipruritic activity. Because of its low dosage[1-3] and relative freedom from untoward reactions,[1-5] Kenacort provides corticosteroid benefits to many patients who until now have been difficult to control. It is particularly valuable for your dermatologic patients with hypertension, cardiac disease, obesity and those prone to psychic disturbances.

REFERENCES: • 1. Freyberg, R. H.; Berntsen, C. A., Jr., and Hellman, L.: Arth. & Rheum. 1:215 (June) 1958. • 2. Sherwood, H., and Cooke, R. A.: J. Allergy 28:97 (March) 1957. • 3. Shelley, W. B.; Harun, J. S., and Pillsbury, D. M.: J.A.M.A. 167:959 (June 21) 1958. • 4. Dubois, E.L.: California Med. 89:195 (Sept.) 1958. • 5. Hartung, E.F.: J.A.M.A. 167:973 (June 21) 1958.

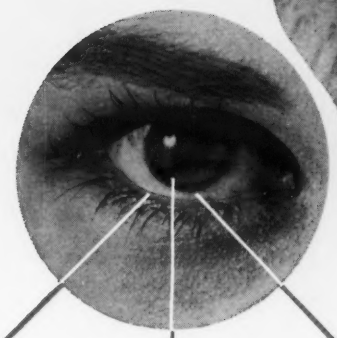
SUPPLIED:
Scored tablets of 1 mg. — Bottles of 50
Scored tablets of 2 mg. — Bottles of 50
Scored tablets of 4 mg. — Bottles of 30 and 100



SQUIBB

Squibb Quality — the Priceless Ingredient

'KENACORT' ® IS A SQUIBB TRADEMARK



common "outer eye" disorders

allergic
(allergic blepharitis, allergic conjunctivitis, episcleritis)

inflammatory
(acute catarrhal conjunctivitis, ulceration, meibomitis, keratitis)

traumatic
(foreign bodies, burns, abrasions, lacerations)

consistently respond to topical therapy with

METIMYD®

ophthalmic suspension

prednisolone 0.5% plus sulfacetamide sodium 10%

ointment with neomycin 0.25%

Tissue destruction is halted, healing is set in motion by the anti-inflammatory, antiallergic action of prednisolone and the antimicrobial property of sulfacetamide sodium combined in METIMYD Suspension...and for an even wider spectrum of antibacterial effectiveness, neomycin sulfate is added in METIMYD Ointment, the ointment form assuring sustained therapeutic action through the night.

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SCHERING CORPORATION • BLOOMFIELD, NEW JERSEY

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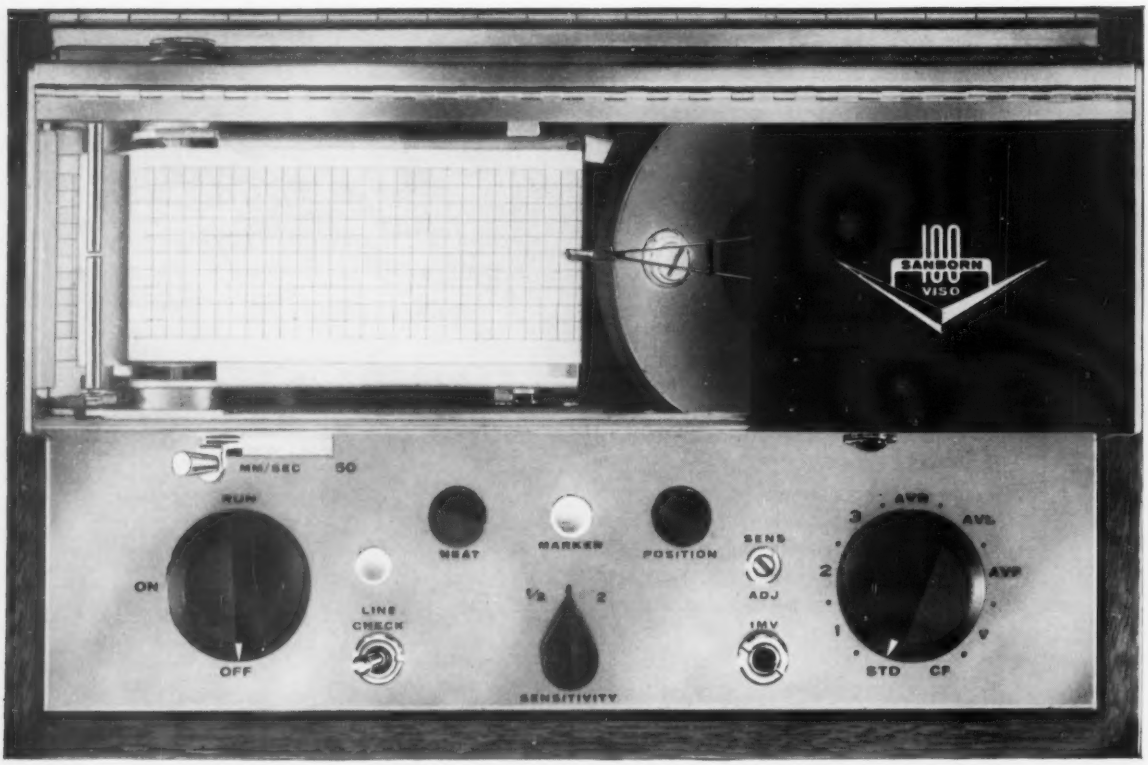
The new Sanborn 100 Viso electrocardiograph: two speeds...25 or 50 mm/sec... clearly defined, permanent traces on 6cm charts... normal, ½, or 2-times recording sensitivity . . . two additional inputs for recording other phenomena, plus outlet for connecting monitoring oscilloscope . . . 15 transistors saving space, weight, and power...and the mobility of 29 pounds, complete . . . make this

FUNCTIONALLY AND FACTUALLY

-the most modern electrocardiograph you can own



EIGHT-HUNDRED FIFTY DOLLARS DELIVERED CONTINENTAL U.S.A. • • SANBORN COMPANY • WALTHAM, MASS.

effective in **93%**

of 1570 patients with

LOW BACK PAIN

(LUMBAGO, SACROILIAC DISORDERS)

effective in **88%**

of 443 patients with

DYSMENORRHEA

AND PREMENSTRUAL TENSION

Dosage: 100 to 200 mg. orally three or four times daily. Relief of symptoms occurs in from fifteen to thirty minutes and lasts from four to six hours.

Supplied: Trancopal Caplets (scored) 100 mg., bottles of 100.

INDICATIONS

Musculoskeletal

Low back pain (lumbago) / Disc syndrome / Neck pain (torticollis) / Fibrositis / Bursitis / Ankle sprain, tennis elbow / Rheumatoid arthritis / Myositis / Osteoarthritis / Postoperative muscle spasm

Psychogenic

Dysmenorrhea / Angina pectoris / Anxiety and tension states / Asthma / Premenstrual tension / Alcoholism

Clinical studies of over 4400 patients by 105 physicians[1] proved Trancopal remarkably effective in musculoskeletal conditions, anxiety and tension states

*the first true tranquilaxant**

Trancopal

***Potent* MUSCLE RELAXANT**
. . . *Equally effective as a* TRANQUILIZER

1. Collective Study, Department of Medical Research, Winthrop Laboratories.

Winthrop LABORATORIES
New York 18, N. Y.

*tran-qui-lax-ant (tran'kwi-lak'sant) [< L. *tranquillus*, quiet; L. *laxare*, to loosen, as the muscles]

TRANCOPAL (BRAND OF CHLORMEZANONE) AND CAPLETS, TRADEMARKS REG. U. S. PAT. OFF.

1372H

New ORAL DECONGESTANT

DRISTAN®

TABLETS

afford a new degree of symptomatic relief from

- **SINUSITIS**
- **THE COMMON COLD**
- **ALLERGIC DISORDERS**

Minimizes the Hazard of Drowsiness on the Job

as compared with other preparations containing antihistamines

Unique 3-layer decongestant tablet development offers a combination of ingredients never before possible to put into a single tablet.

DRISTAN—*Faster In Therapeutic Action*

Regular Enteric Coated Tablet	3-Layer Uncoated Dristan Tablet
Disintegrates in 3 hours	Disintegrates in 7 minutes

Dristan Decongestant Tablets—afford *a new degree of relief* from the symptoms of sinusitis, nasal allergies, postnasal drip and the common cold by releasing:

(1) A POWERFUL VASOCONSTRICTOR . . . phenylephrine hydrochloride. This shrinks swollen sinus membranes and promotes proper drainage.

(2) A UNIQUE ANTIHISTAMINE . . . phenindamine tartrate. Rarely produces drowsiness. Controls the edema and discharge caused by offending allergens.

(3) VITAMIN C. Under body stress such as fever and infectious diseases — the normal requirements double. The daily dose of Vitamin C in Dristan is *more than twice* the recommended daily allowance.

(4) Approved APC formula . . . aspirin, phenacetin and caffeine.

Professional Supplies on Request:
Ask the detail man from Whitehall Laboratories or send request on your professional letterhead to:

References: Annals of Allergy, Vol. 6. July-August 1948. Study of a New Histamine Antagonist, The Pennsylvania Med. J., Vol. 51. Clinical Study of a New Antihistaminic Drug—Phenindamine. Dristan Clinical Study.

WHITEHALL LABORATORIES
22 EAST 40TH STREET, NEW YORK 16, N. Y.

"AT THE SCENE"...

IMMEDIATE PAIN RELIEF

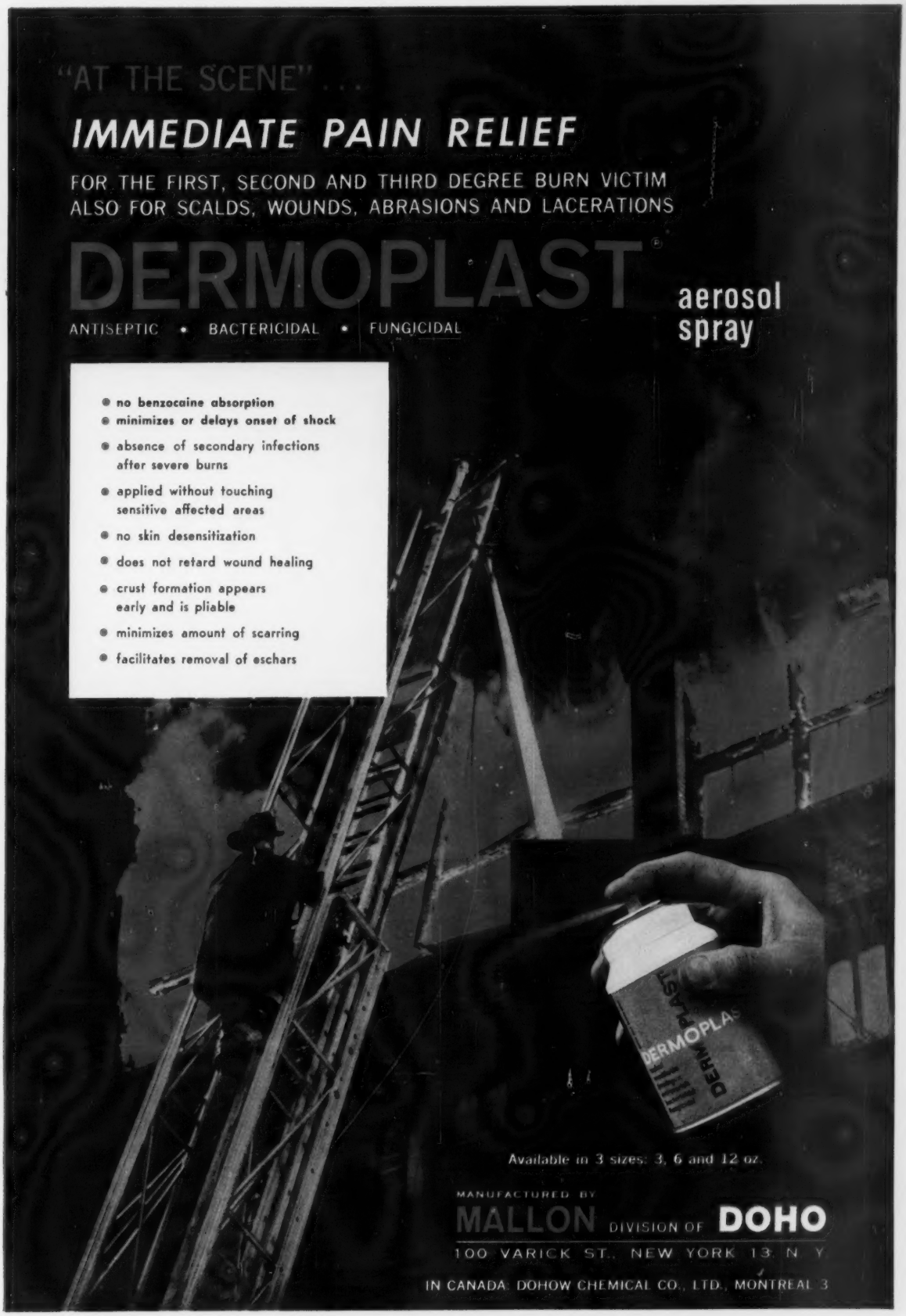
FOR THE FIRST, SECOND AND THIRD DEGREE BURN VICTIM
ALSO FOR SCALDS, WOUNDS, ABRASIONS AND LACERATIONS

DERMOPLAST®

aerosol spray

ANTISEPTIC • BACTERICIDAL • FUNGICIDAL

- **no benzocaine absorption**
- **minimizes or delays onset of shock**
- absence of secondary infections after severe burns
- applied without touching sensitive affected areas
- no skin desensitization
- does not retard wound healing
- crust formation appears early and is pliable
- minimizes amount of scarring
- facilitates removal of eschars



Available in 3 sizes: 3, 6 and 12 oz.

MANUFACTURED BY
MALLON DIVISION OF DOHO
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IN CANADA: DOHOW CHEMICAL CO., LTD., MONTREAL 3

"Deformity in rheumatoid arthritis develops in two stages. The most obvious is joint destruction. But even earlier... muscle spasm...has insidiously started to lead to deformity."[1]

in rheumatoid arthritis...

PARAFON*
with PREDNISOLONE

provides spasmolytic, anti-inflammatory, and analgesic action

dosage: One to two tablets three or four times a day.
supplied: Tablets, scored, buff colored, bottles of 36. Each tablet contains PARAFLEX® Chlorzoxazone† 125 mg.; TYLENOL® Acetaminophen 300 mg.; and Prednisolone 1.0 mg.
precautions: The precautions and contraindications that apply to all steroids should be kept in mind when prescribing PARAFON WITH PREDNISOLONE.

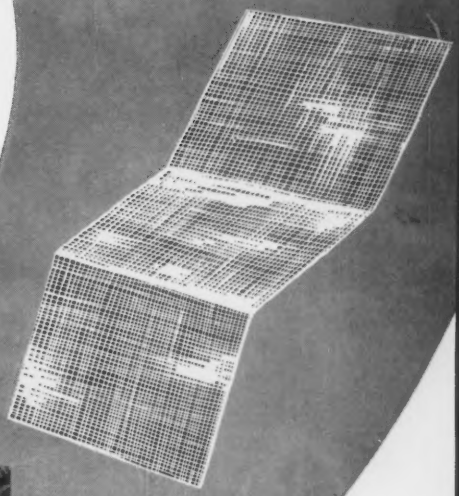
1. Swanson, J. N.: Canad. M. A. J. *79*:638 (Oct. 15) 1958.

McNEIL

McNEIL LABORATORIES, INC • PHILADELPHIA 32, PA.

*Trade-mark †U.S. Patent Pending 265A59

The NEW DUAL PURPOSE



VASELINE
PETROLATUM GAUZE U. S. P.
STERILE
3 x 3 PAD, opens to 3 x 9 INCHES
Fine Mesh Absorbent Gauze (44/36)
Impregnated with White Petrolatum
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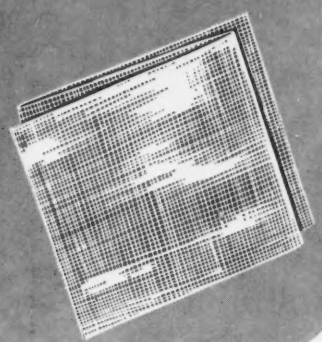
UNOPENED ENVELOPE MAY BE AUTOCLAVED OR COLD-SOAKED
TEAR HERE

3″ x 9″ STRIP

Shorter length ends waste on small area wounds. New Z-fold insures perfect graft takes. Guaranteed sterile at time of use.



3″ x 3″ PAD

Three-ply, fine-mesh gauze, lightly impregnated — for use in physician's office, industrial medical department, first aid.

6th SIZE of VASELINE® PETROLATUM GAUZE

Now supplied in:

1/2″x 72″	3″x 18″
1″x 36″	3″x 36″
3″x 3″/ 3″x 9″	6″x 36″

Sole Maker:

CHESEBROUGH-POND'S INC.

Professional Products Division

New York 17, N. Y.

VASELINE *is a registered trademark of Chesebrough-Pond's Inc.*

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& PRICE

the new line of VIM standard & disposable syringes & needles—contact your Surgical Products Divison representative, or write direct.

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SUTURES AND VIM HYPODERMIC
SYRINGES AND NEEDLES

CONTROL G.I. SPASM
PRE and POST OPERATIVELY

Milpath®

®Miltown + *anticholinergic*

direct antispasmodic action
at the peripheral level
plus control of anxiety and
tension at the central
level... without the dry
mouth, blurred vision or
loginess associated
with belladonna, bromides
and barbiturates.

now <u>two</u> forms for adjustable dosage

MILPATH-400—Each yellow scored tablet contains meprobamate 400 mg. and tridihexethyl chloride 25 mg. Bottle of 50.

DOSAGE—1 tablet t.i.d. at mealtime and 2 at bedtime.

MILPATH-200—Each yellow, coated tablet contains meprobamate 200 mg. and tridihexethyl chloride 25 mg. Bottle of 50.

DOSAGE—1 or 2 tablets t.i.d. at mealtime and 2 at bedtime.

® **WALLACE LABORATORIES** *New Brunswick, N.J.*

new for total management of itching,[1,2] inflamed,[3,4] infected[5,6] skin lesions

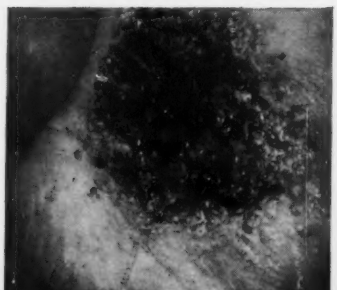
Dermatitis repens
7 weeks duration

Cleared in 5 days

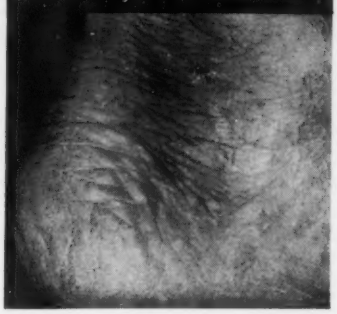
Mycolog ointment

Kenalog, Spectrocin and Mycostatin in Plastibase

antipruritic/anti-inflammatory/antibacterial/antifungal



Infectious eczematoid dermatitis of ankle—5 years duration



Cleared in 20 days

Mycolog Ointment – containing the new superior topical corticoid Kenalog – reduces inflammation,[3,4] relieves itching,[1,2] and combats or prevents bacterial, monilial and mixed infections.[5-7] It is extremely well tolerated, and assures a rapid, decisive clinical response for most infected dermatoses.

> **"Thirty-one of 38 patients . . . obtained excellent or good control of dermatological lesions . . . [Mycolog] was highly effective, particularly in the management of mixed infections. Several recalcitrant eruptions which had not responded to previous therapy were remarkably responsive to the daily application of this preparation over periods of 2 to 3 weeks."[8]**

For total management of itching, inflamed, infected skin lesions, Mycolog contains triamcinolone acetonide, an outstanding new topical corticoid for prompt, effective relief of itching, burning and inflammation[1-4] – neomycin and gramicidin for powerful antibacterial action[7] – and nystatin for treating or preventing Candida (Monilia) albicans infections.[8,9]

Application: Apply 2 to 3 times daily. Supply: 5 Gm. and 15 Gm. tubes. Each gram supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base, 0.25 mg. gramicidin, and 100,000 units nystatin in PLASTIBASE.

References: 1. Shelmire, J.B., Jr.: Monographs on Therapy 3:164 (Nov.) 1958. · 2. Nix, T.E., Jr., and Derbes, V.J.: Monographs on Therapy 3:123 (Nov.) 1958. · 3. Robinson, R.C.V.: Bull. School of Med., U. Maryland 43:54 (July) 1958. · 4. Sternberg, T.H.; Newcomer, V.D., and Reisner, R.M.: Monographs on Therapy 3:115 (Nov.) 1958. · 5. Clark, R.F., and Hallett, J.J.: Monographs on Therapy, 3:153 (Nov.) 1958. · 6. Smith J.G., Jr.; Zawisza, R.J., and Blank, H.: Monographs on Therapy, 3:111 (Nov.) 1958. · 7. Monographs on Therapy, 3:137 (Nov.) 1958. · 8. Howell, C.M., Jr.: North Carolina M.J. 19:449 (Oct.) 1958. · 9. Bereston, E.S.: South. M.J. 50:547 (April) 1957.

And whatever the topical corticoid need, a suitable Squibb formulation is available—Kenalog-S Lotion—7½ cc. plastic squeeze bottles. Each cc. supplies 1.0 mg. (0.1%) triamcinolone acetonide, 2.5 mg. neomycin base and 0.25 mg. gramicidin. Kenalog Cream, 0.1%—5 Gm. and 15 Gm. tubes. Kenalog Lotion, 0.1%—15 cc. plastic squeeze bottles. Kenalog Ointment, 0.1%—5 Gm. and 15 Gm. tubes.

SQUIBB

Squibb Quality — the Priceless Ingredient

'SPECTROCIN'®, 'MYCOSTATIN'®, 'PLASTIBASE'®, 'MYCOLOG' AND 'KENALOG' ARE SQUIBB TRADEMARKS

for fast, comprehensive relief of hay fever distress

BENADRYL®

ANTIHISTAMINIC-ANTISPASMODIC

You can help your allergic patients to enjoy greater comfort during the hay fever season by prescribing BENADRYL. *Its potent antihistaminic action relieves nasal blockage, rhinorrhea, sneezing, itching, and related allergic reactions, while its atropine-like antispasmodic action suppresses bronchial and gastrointestinal spasm.* BENADRYL *Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a variety of convenient forms including: Kapseals,® 50 mg. each; Kapseals, 50 mg., with ephedrine sulfate, 25 mg.; Capsules, 25 mg. each; Elixir, 10 mg. per 4 cc.; and Emplets,® 50 mg. each, for delayed action. For parenteral therapy,* BENADRYL *Hydrochloride Steri-Vials,® 10 mg. per cc.; and Ampoules, 50 mg per cc.*

MEDICAMENTA VERA

PARKE, DAVIS & COMPANY · DETROIT 32, MICHIGAN

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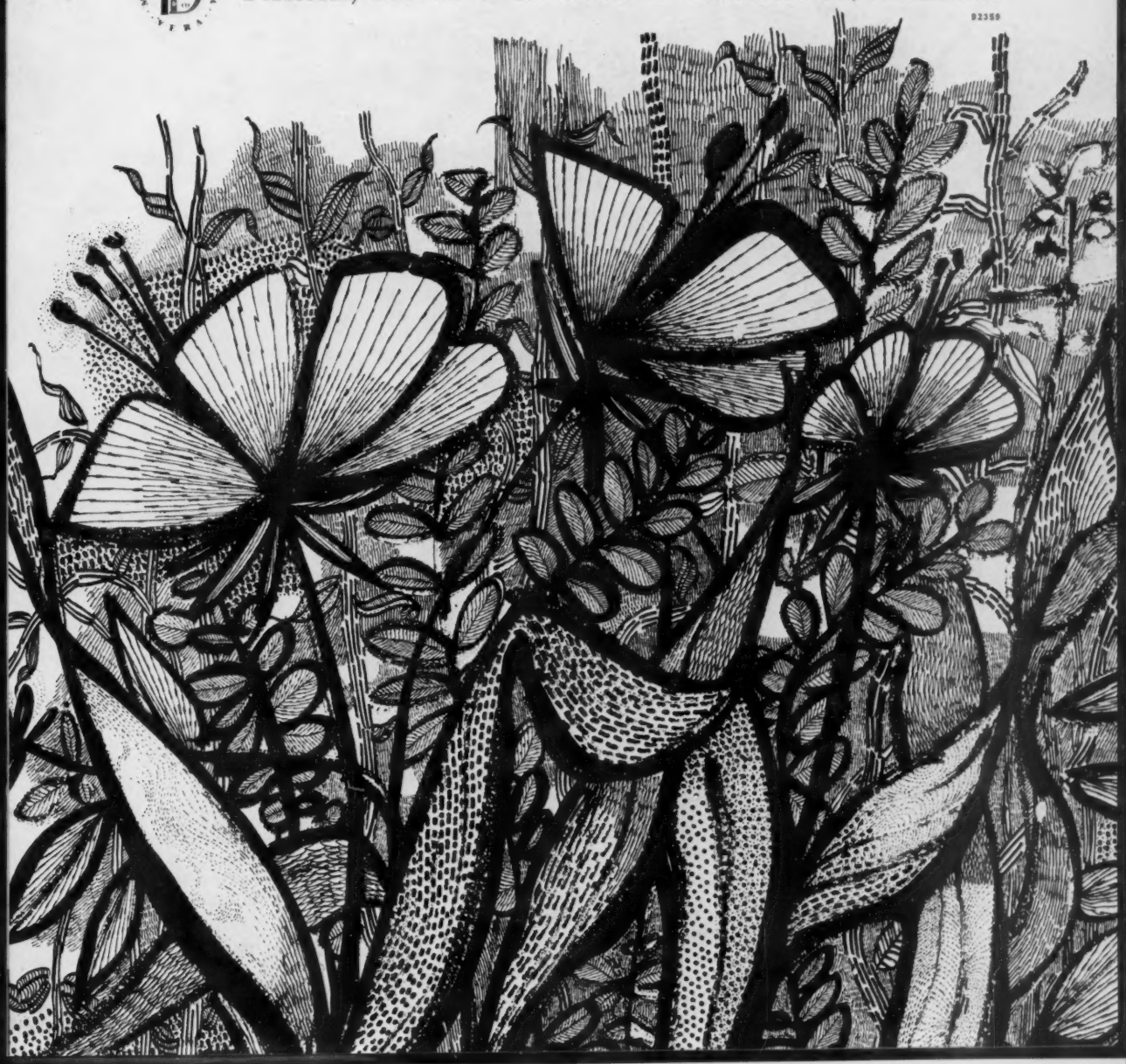
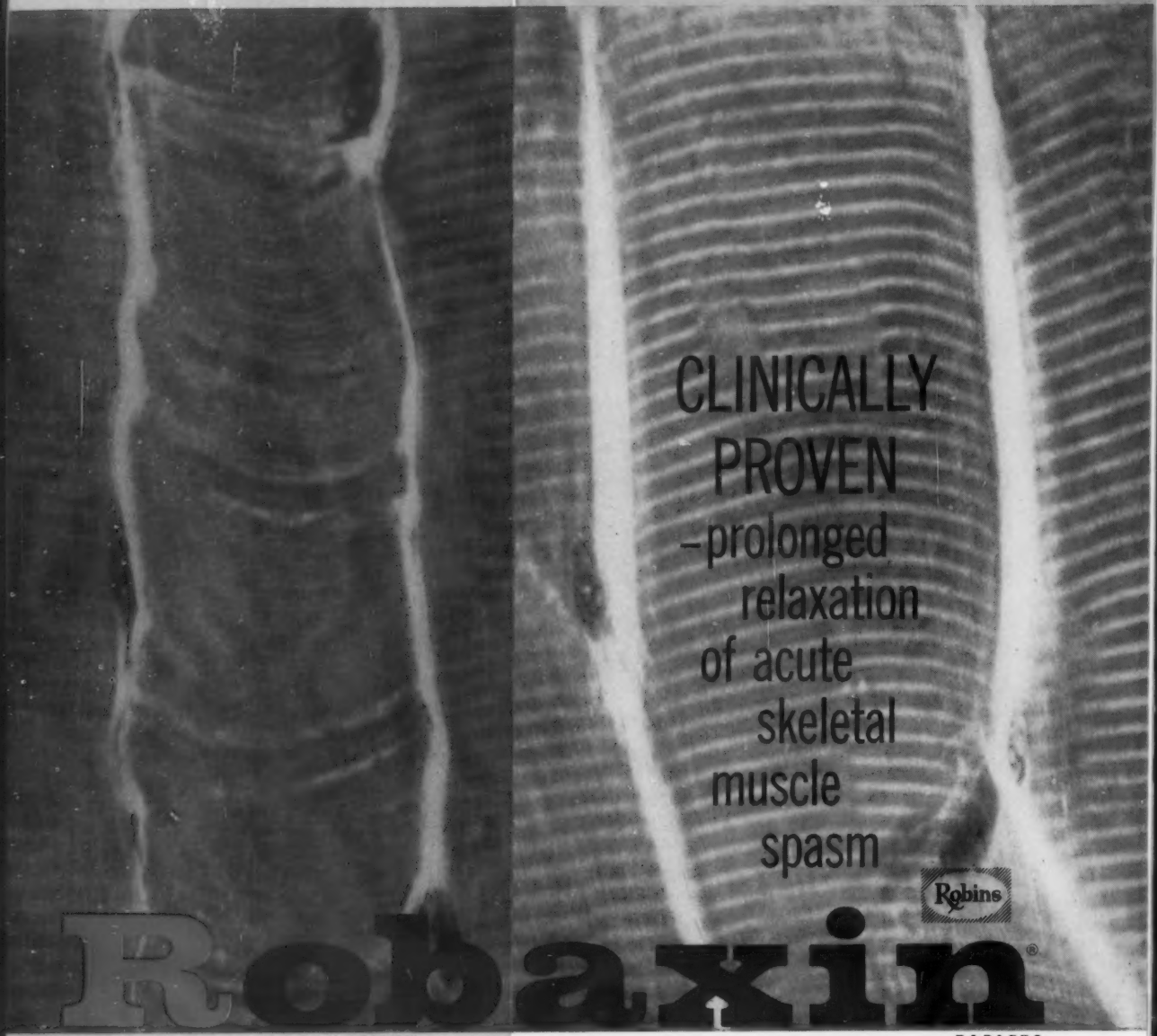


Fiber of skeletal muscle in spasm

Fiber of skeletal muscle relaxed *(photomicrographs)*



CLINICALLY PROVEN –prolonged relaxation of acute skeletal muscle spasm

Robins

Robaxin®

Methocarbamol Robins U.S. Pat. No. 2770649

TABLETS

Summary of six published clinical studies:

ROBAXIN BENEFICIAL IN 92.4% OF SKELETAL MUSCLE SPASM CASES

	NO. PATIENTS	RESPONSE			
		"marked"	moderate	slight	none
Carpenter[1]	33	26	6	1	—
		"pronounced"			
Forsyth[2]	58	37	20	—	1
		"good"			
Lewis[3]	38	25	6	—	7
O'Doherty &		"excellent"			
Shields[4]	17	14	2	1	0
		"significant"			
Park[5]	30	27	—	2	1
		"gratifying"			
Plumb[6]	60	55	—	—	5
TOTALS	236	184 (78.0%)	34 (14.4%)	4	14

- **Highly potent—and long acting.**[1,2,3]
- **Relatively free of adverse side effects.**[1,2,3,5,6]
- **In ordinary dosage, does not reduce muscle strength or reflex activity.**[1]

REFERENCES: 1. Carpenter, E. B.: Southern M. J. 51:627, 1958. 2. Forsyth, H. F.: J.A.M.A. 167:163, 1958. 3. Lewis, W. B.: California Med. 90:26, 1959. 4. O'Doherty, D. S., and Shields, C. D.: J.A.M.A. 167:160, 1958. 5. Park, H. W.: J.A.M.A. 167:168, 1958. 6. Plumb, C. S.: Journal-Lancet 78:531, 1958.

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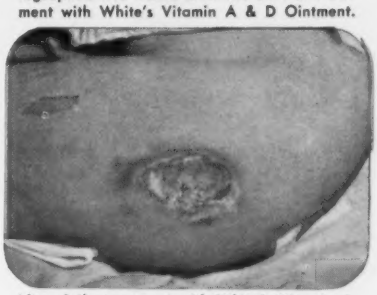

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"TIGHT NECK"

TRAUMATIC STRAINS AND BRUISES

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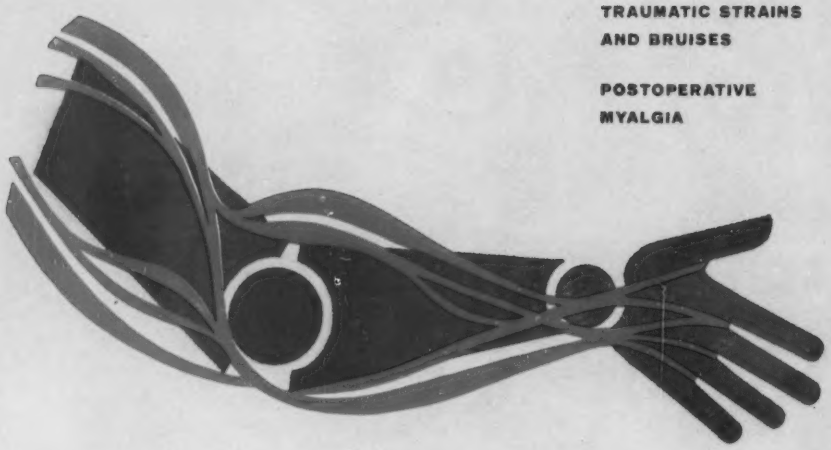

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THE HEALTH OF PEOPLE WHO WORK

Manuscripts included in this special issue of *Industrial Medicine and Surgery* represent the most advanced thinking by nationwide authorities on problems of occupational health. Some had been prepared prior to the recent 1959 National Health Forum in Chicago as "orientation papers" designed to familiarize participants with background subject matter, while others were presented before the 17 simultaneous group discussions which formed the basic structure of the Forum.

It was impossible to present even a majority of the papers in this issue, for approximately 80 discussants participated in the Forum. Future issues of *Industrial Medicine and Surgery* will include additional Forum manuscripts.

Many conferences on occupational health subjects have been held in the past. None has approached the subject with as broad a conception of its responsibilities as this meeting, which included not only representatives of labor, management and the professions, but voluntary and official health agencies and civic groups.

The first national conference on industrial diseases was called in Chicago in 1910 by the American Association for Labor Legislation, and in that same year the passage of the first workingman's compensation law in New York State gave additional impetus to the growth of industrial medicine. Just 49 years later, on March 17 to 19, the National Health Council, in behalf of its more than 60 member agencies, invited representatives to the 1959 Forum, the eighth of its kind dedicated to mutual consideration of important national problems which require public and professional attention and action by many groups.

In the intervening years much progress had been made. Good occupational health programs in large industries were proving their worth, but relatively little was being done for small plants. New threats to physical and mental health were being found in new products, new forms of energy and new patterns of production and distribution. All those interested in the health of workers were becoming increasingly aware of the need for closer relationship between the job, the home and the community.

The Council also recognized that additional manpower was sorely needed, for along with virtually all other aspects of health work, occupational health progress is threatened by shortages of trained personnel.

Thus, Forum participants met in a challenging atmosphere, with mutual concern for chosen problem areas — mental health, costs, retirement, communication, education, small plant programs, evaluation, manpower, environment, placement and related subjects.

In a message read to the opening session, President Dwight D. Eisenhower said, in part: "My earnest hope is that by bringing together these diverse and dedicated groups, your Forum will make a major contribution to the protection and improvement of the health of those on whom our national economy and security depend." Arthur S. Flemming, Secretary of Health, Education and Welfare, the opening speaker, and other key speakers, were unanimous in their opinion that the health of the nation's manpower was a matter of national concern.

Albert Q. Maisel, nationally-known medical writer, is now editing a comprehensive review of current thought and projections on occupational health problems and services, based on the Forum record. It will be published as a permanent reference book in the fall.

—L. A. HOLLINGSWORTH

THE EFFECTIVE USE OF HUMAN RESOURCES

• ARTHUR S. FLEMMING
Secretary of Health, Education and Welfare

The one factor that might limit our ability as a nation successfully to adjust to the complexities of an increasingly complex world is not our fiscal resources, not our material resources, but adequately trained human resources.

Gathered at the National Health Forum are leaders of many segments of our population, with just one purpose in mind; to determine how we can utilize more effectively the manpower resources that are available to our nation. You are here not because someone directed you to be here, but because you want to be here. You are here because you want to recognize, by your presence and by your participation, the importance of utilizing, in the most effective possible manner, this great resource that has been made available to us. And I know that as you gather for these deliberations you feel, as I do, that there is no more important issue confronting our nation today than the effective use of our human resources.

During November and December I held 12 one-day conferences in Washington. I invited the heads, or their representatives, of national organizations in the various areas for which we have responsibility to come to Washington, not to listen to us, but to talk to us about our programs and their programs. It was one of the most stimulating experiences that I have ever had. During those 12 days, the heads, or the representatives of over 820 national organizations participated in the meeting.

As I look back on those conferences I recognize that only one issue was discussed in all of them: the shortage of qualified manpower.

That is why I believe that the leaders of the National Health Council were on the right track when they focused the attention of the 1954 Health Forum on Health Careers. And it is certainly heartening to know that the conference in 1954 led to a program, and that the program is producing results.

Presented at 1959 National Health Forum, March 17-19, Chicago, Illinois.

You cannot always say that about conferences. Many of them are held on various subjects, but not all of them produce a program, and not all of them provide the impetus that makes it possible for the program actually to be put into operation. But I feel that the Health Careers Program that is being sponsored by this Council is one of the most significant steps that has been taken in the health field, and I am delighted that it is producing results.

I feel that one of the principal reasons why this program is leading to constructive action is that it starts out at the level of secondary education. Everything else that we attempt to do in an effort to deal with manpower problems will be meaningless unless we can motivate an increasing number of young men and women in our secondary schools to the place where they want to devote their lives to taking advantage of the opportunities for service that are open to all who participate in health work.

It is because of my belief that manpower could be the limiting factor in our continued progress as a nation, that I believe that the leaders of the National Health Council are once again on the right track by selecting the health of people who work as the theme for the 1959 Health Forum. All of us recognize that there is a direct relationship between this theme and our ability as a nation to utilize our human resources in an intelligent and effective manner.

The Public Health Service tells me that on the basis of the best information available to them, sickness causes the loss of 500 million man days each year, at a wage cost of about six billions of dollars. They also tell me that almost 300 million days are lost annually from school because of sickness or injury. In summing it all up, they estimate that, for the population as

a whole, there are about three billion man days of restricted activity each year.

And then think of the people who are not included in figures such as these, but who attempt to carry on their everyday activity even though they are sick in body, mind, and oftentimes, soul. We know that such persons, even though they are technically on the job, cannot render maximum service. Yes, I believe that in the next few days you will be dealing not with one of our problems, but with one of our greatest opportunities in the field of human resources.

I would like to underline an observation made by the first Lord Leberon, an outstanding British business leader in the early part of this century. He said, "So often we fix our attention too much on the goal of our ideas, rather than on the best methods to follow in order to reach the goal."

I am not sure that I am in complete agreement with this statement, but I do regard it as a rather stimulating and challenging one. The reason I am not in complete agreement with it is that I am not sure that any of us spend too much time fixing our attention on the goal of our ideas. But it certainly is true that oftentimes we do spend too much time dreaming about what might be done instead of using that time for developing and putting into effect methods that will enable us to reach the goals we dream about.

I feel that far too many conferences are devoted to dreaming about goals, when at least a portion of the time should be devoted to the consideration of methods that will make it possible to reach those goals. That is what I like about the pattern of these Health Forums; they not only lift up a goal, but they concentrate on the development of methods that are designed to reach the goal.

Here are the methods on which I believe we must concentrate if we are to add to the productive resources of our nation by sharply reducing the hundreds of millions of man years that are lost to us as a result of sickness. First of all, we must define our objective. Second, we must develop programs that will enable us to reach our objectives. Third, we must identify the duties and responsibility that need to be discharged if our programs are to be put into operation. Fourth, we must assign these duties and responsibilities to persons and organizations that are qualified to discharge them. And finally, we must communicate our objectives and programs to others in such a manner as to gain the support that we must have if we are to reach our goal.

I would like briefly to deal with each one of those five basic processes in the field of administration.

First of all, we must define our objectives. On the basis of my own observation, particularly in the fields of education and government, I think that this is the most neglected process in the whole field of administration. I think this is particularly true of voluntary organizations of one kind or another.

Now, you may take issue with that observation. You may say that in your judgment this is not a neglected process in the field of administration. Well, put the observation to a test. The next time you talk with someone who feels enthusiastic about an organization, ask him to tell you about the objectives of that organization. The chances are that he will become slightly embarrassed and find it difficult to identify those objectives.

Personally, I do not believe that any organization has a meaningful set of objectives unless the members of the organization or their representatives take time to think through the objectives and put them in writing. Any organization that has not written its objectives does not have a meaningful set of objectives.

As I have had the opportunity of becoming acquainted with the plans for this three-day conference, it is perfectly clear to me that this basic process is not going to be neglected. And I congratulate those who have developed the program for this conference on that fact. You are going to consider what our objectives should be in health education in the occupational setup; and that, after all, provides the opportunity for arriving at some understanding and some agreement on what I might call the over-all objectives in this whole area of health occupation.

You may say, "Well, we can refer you to some objectives in this particular area that have been reduced to writing." And I am sure that that is the case. But are those the objectives of all of the organizations that comprise this Council? Are they objectives on which all of these organizations would be willing to agree? And are they objectives towards which all of these organizations would be willing to dedicate their resources, time, talents, energies and funds?

I note, also, that you are going to consider what our objectives should be when it comes to the placement of workers in relation to their physical and mental capacities. All of us recognize the fact that from World War II to the present time, we have made considerable progress in dealing with this opportunity in the manpower field. But I am also sure that all of us recognize that there is a great deal that remains to be done. I believe that in these three days you are presented with the opportunity of focusing the objectives towards which we should work.

You are also going to consider what our ob-

jectives should be in terms of creating a living environment in the community that will contribute to the physical, mental and spiritual well being of those who make up our working population. Many of us feel that our community should make more progress in developing this kind of a living environment.

I think of the community with which I am associated at the present time, the District of Columbia. I know that the District of Columbia and the Congress of the United States are not working towards well defined objectives designed to provide us with a living environment that will make a major contribution to the physical, mental and spiritual well being of those who work in our community.

If you take issue with that statement, the next time you come to Washington take a walk, not down Constitution Avenue, but over into other portions of our community and observe the conditions that exist. It is hard to observe those conditions without wondering why it is that the Congress of the United States, which happens to be the City Council for the District of Columbia, is not stirred to action. The conditions are deplorable and inexcusable in many parts of our community. We are not working toward well defined objectives.

I note that you also are going to consider what our objectives should be when it comes to helping our associates prepare for retirement. Personally, I anticipate eagerly the results of your deliberations of this subject. I believe that we are following a lazy man's policy when it comes to dealing with the problem of retirement. I think that the time has long since passed when we can just automatically retire persons because they have reached a particular age. And I am glad to note that in industry and in government there is a growing recognition of this fact.

When I took over as Secretary of Health, Education and Welfare, I was delighted to note that our own Director of Personnel had been working on a plan for tapering off of activity on the part of those who otherwise would be automatically retired at a particular age.

I have no doubt that the realization on the part of men and women of impending retirement, that when they reach a particular date there is no place for them in an organization, is having an adverse effect on their productivity. I notice that in the field of educational administration, the idea that up until June 15th of a particular year a man was capable of handling a nine or 12-hour teaching load, and then on June 16th he was not capable of handling even a single hour of teaching, had an adverse effect on the morale of the members of the faculty who were approaching that point. And I think that is true in government. I think it is true in industry.

Not only is our Director of Personnel in the Department of Health, Education and Welfare developing a plan, but we are in the process of trying to get the Civil Service Committee to back that plan so we can get the necessary legislation from Congress. I am sure that as the result of this session you will help to sharpen up our objectives in this area.

As I think of these subjects that you are going to discuss, and others that I am sure will come up for discussion, may I express the hope that you will agree upon some nationally acceptable objectives?

Once we have defined our objective it is not too difficult to develop programs to reach those objectives. It is clear, from a study of your program, that considerable attention is going to be given to this process. Major consideration is to be given to the development of programs for small plants. I like that because it is clear that such plants, as well as large ones, should have well defined objectives. But how easy it is to say, "Well, this is fine for the large organization but we're so small we can't do anything about it." It is possible to develop a program that is adapted to the situation in a small organization. And I am sure that it is in that spirit that those who have developed the plans for this Forum have introduced this theme. I do not know of anything that you can do that will be more constructive than to raise the sights of those who work in small organizations as they consider the objectives that should be achieved in the field of occupational health.

Having identified our objectives, having developed programs, then it is clear that we must identify the duties and responsibilities that need to be discharged if our programs are to be put into operation. It is also clear that we must assign these duties and responsibilities to persons and organizations that are qualified to discharge them. Here, again, it seems to me we are dealing with oft neglected basic processes of administration. I think this is particularly true of voluntary organizations at the local level.

I often ask local groups, "Have you identified the duties and responsibilities that need to be discharged in order to carry forward your programs effectively? Have you identified the qualifications the person should have in order to perform these duties and responsibilities? Have you gone out to recruit the best qualified person?"

Men and women who wouldn't think of operating a private organization without going through that process admit that they have not done it in connection with the local group. It is a very basic and important process in the field of ad-

ministration which we certainly should apply to any organization that is seeking to achieve worth-while objectives.

But as I studied the agenda for this Forum it is clear that you are not going to neglect this process. I note that the theme of one of your section meetings is, "Who Has Responsibility for What?" And of another is, "Who Pays for What?"

I am sure that we will never agree on who pays for what until we have defined our objectives, worked out our programs and then reached agreement on who is best qualified to perform the duties and responsibilities that have been identified as essential to the successful operation of the program. Where we have done this, a great deal of the resistance to providing funds disappears.

If it is clear that our community, business and organization has an important part to play in connection with the achievement of a worthwhile objective, then each of these will develop a plan for financing its part.

This conference is not going to stop with identifying the qualifications that individuals should have if they are to discharge important duties and responsibilities in the field of occupational health, but that you are also going to address yourselves to the question, "Where Is the Manpower Coming From?" This brings you back to the theme of the 1954 Health Forum, to a consideration of the programs that have been developed by this Council in order to add to our supply of qualified manpower.

Dr. Birney recently appointed an advisory council, composed of very distinguished citizens, chaired by Frank Bain, the former Executive Secretary of the Council of State Governments, to take a long term look at our health manpower problems. We have encouraged that group to "call the shots" as they see them. When they make their recommendations I can assure you they will be given careful consideration, and that we will do everything we possibly can to put them into operation.

The final method in the field of administration on which I would like to comment is that we must communicate our objectives and programs to others in such a manner as to gain the support we must have to reach our goal.

This is not a neglected process of administration. All you have to do is to take note of the large number of firms that have been organized for the purpose of advising those who have the administrative responsibility of dealing with this process. But in spite of the investment that has been made and is being made in communications, it is still a baffling one. I am delighted, therefore, that one of your sections is built around the theme, "Understanding Each Other," and that another section is going to address itself to the question, "Are Occupational Health Programs Worth-While?"

I am particularly fascinated by the theme, "Understanding Each Other." I am sure that what you are going to be talking about is opening up the channels of communication between individuals and groups that should have communication with one another if they are to achieve their objectives. And I am sure that you are going to talk about how we communicate with one another once we have opened up these channels. I hope that as you discuss this question, you will do everything you can to urge all who are working in this area to stay away from professional or technical lingo.

I do not know of anything else in life that impedes progress toward well defined objectives to a greater extent than a constant desire to develop shorthand expressions which, instead of facilitating communication, impede it. I am sure you have had the same kind of experiences that I have had. I have sat in meetings in Washington where persons were supposed to be briefing some of us, and within the first five minutes they began to use their own lingo. And then I watched the baffled expressions on the faces of the persons who are being briefed. It is just a question of who is going to admit that he is baffled so that he can find out what is really being said. If I happen to be chairing the meeting I am always willing to admit that I am baffled and ask for a translation of the terms. I hope that you will identify this as one of the practices that impedes communication.

So, we must not only agree on worth-while objectives, we must not only develop programs that are designed to achieve these objectives, but we must take time to communicate our objectives to others. Above all, we must develop ways and means of demonstrating that our programs are enabling us to make progress in achieving these objectives.

We must be able to measure results, and then we must be able to present those results to those on whom we are dependent for support, if we are to move forward in occupational health. And I do not need to identify for you the persons who need to be convinced. I am sure you are are going to be talking about those persons a great deal during the next three days.

At the beginning of these comments I said that all of us here recognize that there is a direct connection between the theme for this Forum and the intelligent use of our most precious resource—our manpower. Last night, in his address to the nation, President Eisenhower said, "To build toward peace and maintain free world security will require action in every field of human enterprise."

In my judgment the effectiveness of that action will depend to a large extent on our ability to make the maximum use of our manpower resources. In the same address, the President said, "Our security shield is the productivity of our free economy, the power of our military forces, and the enduring might of a great community of nations determined to defend their freedom."

I believe that the productivity of our free economy, the power of our military forces and the enduring might of a great community of nations is more dependent on an intelligent utilization of our human resources than any other single factor.

When we realize what is at stake in this world today, we become more conscious than ever of the fact that we cannot afford to waste the man days that are being wasted every year because of our neglect of this area to which you are going to devote your attention for the next three days.

But may I also suggest that, powerful as these motivations are, there is another motivation that I believe we must keep at the center of our thinking and planning, and that is that our work in the field of occupational health provides us with another opportunity of applying, in a practical way, a spiritual law of life, that we are to love our neighbor as ourselves. For me, this particular commandment has come to mean that we are faced with an obligation to take advantage of every opportunity that is presented to us to help our neighbor realize his highest possibilities. And I believe that it is only as we and as our fellow citizens place this law at the center of our lives that we will maintain a sustained effort in the direction of reaching our goals in the field of occupational health.

Fear of another nation stirs us up at times and leads to some constructive activity for a short period of time. Unfortunately, however, we learn how to accommodate ourselves to our fears, and we forget about them. Sustained effort in the direction of helping our fellow humans realize their highest possibilities arose out of a recognition on our part that this is a spiritual law of life, and that only as we apply it in our own lives do we get genuine satisfaction from living.

I am thrilled over the prospects of this Forum; and I can assure you that as a citizen and as a person who happens to be occupying the position I am now occupying, I am going to look forward with real anticipation to the results of this conference. And I am sure that growing out of this conference there will be recommendations that will be made to the federal government.

You will probably tell us that we have not defined our objectives in this particular area as clearly as we should, whether you think of us as the nation's largest employer, or whether you think of us as a branch of government that should be exercising leadership in the solution of health problems.

But I can assure you that whatever you want to say along that line, or whatever you want to say regarding the role that we should occupy as leaders in this tremendously important area, your comments, your recommendations, your observations will be welcome. They not only will be welcome, but they will be given consideration and we'll tell the officers of this Health Council just what we do with them. If we accept them, we will tell you, with pride, that we have accepted them. If we modify them, we will tell you why we found it necessary to modify them. If we have to reject them, we will tell you why we felt that was necessary.

I hope that you will regard this as an opportunity for opening up the channels of communication not only back to your community, and not only with the organizations of which you are a part, and not only with the industrial concerns with which you are associated, but that you will also look upon it as an opportunity to open up more effectively the channels of communication between all of the organizations that are represented on this Council and the United States Government. And if they are opened up, I hope that we will be able to talk with one another without indulging in any lingo so that we will clearly understand what we are saying to one another.

Thank you so much for giving me this opportunity to come here and share with you some of my observations and convictions relative to the imperativeness of our nation's doing everything within its power to make full and intelligent use of the manpower resources that are available to us.

The Challenge of Occupational Health

• A. J. HAYES
President
International Association of Machinists

The present state of our occupational health services is a challenge to every American who is interested in the well-being of his fellow citizens and his nation.

In dealing with the challenge of occupational health, it is inevitable that we use statistics. But statistics are general and impersonal, and before turning to them, I want to note that the problem we are dealing with is a highly personal one. It involves the life and health of individuals—the young breadwinner, who is taken from the wife and children who need him so much; the worker in his middle years, who is robbed of the just rewards of a lifetime of work by the slow accumulation of industrial poisons; perhaps the working mother, who is taken away from her family completely by an occupational disease. In our consideration of the problems before us for the next few days, we must never forget them, for basically they are the reasons why we are here.

According to a survey of disability in the United States conducted by the U. S. Public Health Service during the months of July, August and September in 1957, American workers lose over 500 million days of work a year as a result of illness. It is estimated that about 10% of this loss, some 50 million days a year, is attributable to illnesses of occupational origin. That, by the way, is more lost time than we have sustained as a result of strikes in any year during the past decade, except for 1949 and 1952, when the days lost as a result of work stoppages amounted to 50,500,000 and 59,100,000, respectively.

The Public Health Service figures substantiate the estimate made in 1950 by Howard Rusk, M.D., Chairman of the Health Resources Advisory Committee of the Office of Defense Mobilization. In addition to his estimate of days lost each year as a result of illness, Dr. Rusk placed the annual wage loss at $4.2 billion. Applying the the 10% estimate to that total, we can figure that American workers lose a minimum of $420 million in wages every year because of occupational illnesses. And this figure does not include the inevitable losses in production and profit.

This tragic toll of human health and equally tragic waste of manpower and purchasing power is challenge enough in a society dedicated to the dignity of the individual, and which has grown materially great by mass production and consumption. Yet, in my mind at least, it is a vast understatement of the true magnitude of the problem.

This is true, I believe, because of two primary factors. First, we have no accurate record of the real toll of what are generally recognized as occupational diseases. Second, our concept of occupational diseases is still woefully limited because of imperfect knowledge and incomplete research.

Let me explain. Our record of the toll of generally recognized occupational diseases is inaccurate because of the vast numbers of employers and workers presently excluded from our system of state occupational disease laws. Two states have no such laws. Twenty-one more states have laws which cover only specified diseases. It is rather ridiculous to assume that a disease is occupational in origin only if a group of laymen in a state legislature says it is, but that is the exact assumption upon which the so-called "schedule" occupational disease laws rest. In addition many state laws exempt small employers, except certain industries, and provide coverage only if the employer so elects. As a result, hundreds of thousands of cases of occupational diseases occur every year without being recorded. The victims are just "sick," and if they die the medical verdict is probably "death from natural causes."

Our knowledge of occupational diseases is

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imperfect, and it is growing more so almost daily as new chemicals, materials, substances and processes are introduced into industry.

Mr. Henry Doyle, of the U. S. Public Health Service, outlined the shifting boundaries of the occupational health problem in an article two years ago when he wrote: "Man, in pursuing his occupation, is afflicted with a wide variety of diseases, ranging from those which are known to be occupational to those in which the work environment has little or no influence. Between these extremes, however, are certain diseases whose development and progression may be distinctly influenced by occupational factors."

In some of these intermediate zone cases, we unquestionably need a broader and deeper understanding of occupational factors which are generally not considered in our present day thinking of occupational illness. But there are many fields in which our present lack of understanding is largely self-imposed. And by that I mean that many segments of American industry deliberately frustrate and hamstring research into certain fields of the causation of occupational disease.

For example, there is medical evidence to the effect that certain of the amines cause or contribute to the development of cancer of the kidneys and bladder. As a matter of fact, the known danger of these chemicals is so well established that their use in industry has been outlawed in Britain since 1951. But in this country attempts to publicize their danger have met with a solid wall of resistance. And some leading users have not only refused to do research on their own but have done everything possible to discourage and frustrate attempts at independent research.

Somewhat the same situation exists in connection with the chromates, which are positively suspect of contributing to cancer of the respiratory tract.

Frankly—although unfortunately—the reason for this type of resistance is not hard to find. It lies in the fact that widespread recognition of the real causes of diseases or handicaps of occupational origin would impose accrued liability on the industries responsible. And it is a tragic fact that, although industry in the United States has made vast strides in the development and use of new substances, materials and processes for production at a profit, we are far behind many other countries in our interest and knowledge of their adverse effects upon the men and women who are forced to use them in their daily quest for bread.

Let me give you a concrete example of this unpleasant fact.

In the days before a suitable and safe substitute was discovered for mercury in the felting process of the hatting industry, the hat makers of at least one state had a very simple method of avoiding their share of the liability for the victims of mercury poisoning. After a worker had recovered from his first siege of disability from the insidious poison, he had to sign a waiver of all future rights to compensation for disability or death resulting from the disease as a condition of re-employment. The system of waivers under workmen's compensation and occupational disease laws still persists in some states, but it probably never had been used more brutally than in the hatting industry, where men, condemned to the slow but certain deterioration and death of mercury poisoning, were forced to surrender their rights to future justice as the price of today's livelihood.

This approach may have saved money for the industry, but its only effect upon the problem of mercury poisoning was to delay its final solution.

Now, I am a union official, but I still hope that I have the ability to consider the problems of management objectively. And I can understand the financial hazard of accrued liability for new, or newly recognized, occupational diseases. But to permit that accrued liability to harden into a wall of resistance to research into the nature of the diseases and methods of prevention is sheer and tragic folly. And we shall pay for it in human health and happiness. Furthermore, the longer the disease is ignored the higher the bill for accrued liability mounts, so that we find ourselves captive in a truly vicious circle.

I do not pretend to know what the answer is. But I do know this—we cannot subject present and future generations of workers to hazards which we know or can know, as a means of permitting industry to escape its liability for past neglect or lack of knowledge. And that is exactly what we have been doing in many instances.

For example, the problem of industrial deafness is one which we are facing right now. It is a known scientific fact that continuing exposure to noise above a given level over a period of time will result in the impairment or loss of hearing. And there are available to industry established methods of controlling noise or protecting workers against it. Yet, for nearly a decade now, the subject of control of industrial noise has been literally kicked around because of the dangers of accrued liability. Somehow we must find a method of protecting this and future generations of workers against the mountingly intricate hazards of modern industry, in spite of this obstacle.

We can no longer afford the luxury of ignorance on the subject of occupational illness, and especially that of self-imposed ignorance. The old adage that "where ignorance is bliss 'tis

folly to be wise" certainly does not hold in the field of occupational health. For we shall pay for our ignorance in the health and lives of our children. And that would be the height of folly.

This is particularly true as we are catapulted into the age of automation and nuclear power. As Mr. Doyle noted, in the paper I referred to earlier: "The industry of the future, with its emphasis on automation, electronic and chemical operations, and nuclear energy, may introduce numerous physiologic, pathologic and psychologic health problems. Some of these problems may have more far reaching effects than those of the past. Thus, while chemical hazards in today's industry affect only the workers directly exposed, in the industry of the future, electromagnetic radiation, unless adequately controlled, might possibly affect generations yet unborn in the families of exposed workers."

It is against these emerging problems of a new technology that we must complete our unfinished business with the past and present and prepare ourselves for the future. For, in spite of our vaunted technology, we are entering the atomic age without having solved the health problems of the machine age.

Let us look at the challenge of occupational health against the shortening shadows of the future, and in the light of what we now can do.

First, I submit, we must impose upon industry a fairer share of the cost of industrial illness than it now bears. In the older field of industrial accident prevention, it is axiomatic that "Safety Pays." And, despite all the humanitarian words and the intricate system of cost accounting that has been developed in connection with safety, safety pays for one very basic reason, and that is that industry, by and large, is responsible for at least a share of the financial costs of accidents under workmen's compensation laws.

Now, I do not mean to be unduly harsh with industry's safety programs, and I do not wish to underestimate the contributions of industrial safety engineers. In the days before workmen's compensation there were those few safety men in industry who were motivated by a sincere concern for the tragic waste of human life and limb that resulted from the industrial process. But in general they were looked upon as "do-gooders," and they achieved real importance only when compensation laws forced industry to bear some part of the financial consequences of industrial injuries.

We shall have more concern for occupational health when industry has to bear a more realistic share of the cost of occupational illness. That must be our point of departure.

In addition, we must take some measures to increase the development and interchange of information on the nature of, and methods of preventing, occupational disease. Our present system of compensation for industrial injury and occupational illness, with its provisions for self-insurance and individual merit rating, has put a high premium on individual performance by big employers. But smaller employers, with less access to good research and information, often exist in a state of archaic ignorance. And the pitiful part of the picture is that the safety man or medical man in the big plant sometimes lives in an ivory tower, of his own building, with little or no appreciation of conditions in other segments of the industry.

One of my associates tells a story which illustrates this point. During World War II, he was employed in the Safety and Health Section of the U. S. Department of Labor. In the course of his work, he helped prepare a series of one-minute industrial safety films. They were produced by a firm which specialized in one-minute films which were widely used for theatre advertising in some sections of the country. The producer had an opportunity to sell the series of 26 films on safety to a big manufacturer. But the safety man for the company balked at one scene in connection with machine shop safety. It was a scene showing the hazards of belt driven machinery. It had been filmed in a small shop in a southern city. The big plant safety man loudly denied that any such machinery existed in 1943, and accused the Labor Department of trying to discredit the safety movement.

This is the kind of ivory tower thinking we must demolish if we are to make progress in our occupational health services. We must somehow tear down the barriers which currently exist between segments of industry, and especially between big industry and smaller plants. Information concerning the technical advantages of new materials and methods has a tendency to flow much more rapidly than information concerning the hazards, and we must strive to equate the flow.

In this connection, I sincerely believe that the National Health Council should do everything possible to secure the most widespread dissemination of the material it and other agencies and organizations develop in the field of occupational health. It will be no service at all to industry to impose the costs of occupational illnesses upon it without giving it information on methods of preventing such illnesses. And compensation alone is poor reward for the victims of the illnesses. Organized labor's goal is not compensation in itself, but compensation as a means of inducing prevention.

In striving toward this goal, organized labor will contribute in every way possible toward enlightening employers and workers alike to

health hazards and methods of eliminating them. In this connection, I believe that a labor union is often the best method of approach to the smaller plant, that is, if the employees in the plant are organized. I believe that a check of the affiliations of those in attendance at this Forum will indicate an almost complete absence of representatives of small plants or groups with which they are affiliated. And to a very real degree, discussing the subject of occupational health here is carrying coals to New Castle. Our discussions will be of little value if they are confined within these walls. On behalf of organized labor I can pledge that we will do all we can to increase our own audience by continuing to organize American workers.

When all of us here have done all we can in carrying word of the benefits of good occupational health services to every segment of American industry, I believe that we must still consider another—and perhaps a more effective—method of approaching the problem of occupational health services. And that is through the medium of broad voluntary health service plans.

To a very large extent, segmentizing the health of the American worker is akin to the practice of the social scientists of segmentizing man himself—the economic man, the political man, the social man and so forth. This approach may be very convenient in considering the many facets of modern man, but in the end a man is a man, and the consideration of one side of him alone may lead—and has led—to erroneous conclusions.

The same thing is true in considering the health of a man. He does not turn in his heart, his lungs, or other organs or segments of his body when he punches in for a day's work and exchange them for "occupational" replacements. And illness keeps him from work, denies him his full wages and deprives his employer of his services, whether or not the illness was occupational in origin.

In the broader sense, the problems of providing better occupational health services is part and parcel of the problem of providing better health services in general to the American people. And, as a matter of fact, as health benefits have improved under general health and welfare plans, a sort of "black market" usage of voluntary health benefits has developed in cases of occupational injury and disease, since under comprehensive health plans employees may be entitled to more extensive medical care than under workmen's compensation and occupational disease compensation laws. As voluntary health plans continue to improve, we may witness a definite overlapping of the two systems of providing medical care.

While such plans generally do not deal with the preventive aspects of occupational health, there is no reason why they cannot develop preventive plant services, especially for the benefit of smaller plants which need them so badly.

Just what the future holds will depend, in major measure, upon what we here, and our associates in the campaign for improved occupational health services, do. I have tried briefly to outline the challenge of occupational health from the viewpoint of the worker. In the next few days it is our obligation to explore this challenge in all of its details and to devise means and methods of protecting American men and women from the intricate and insidious health threats which modern industry is developing.

Healing Vitamin C

There is a direct relationship between the amount of vitamin C in the diet and the strength of healing wounds in laboratory animals, it was reported at a session of the American Institute of Nutrition, held April 15, 1959 in conjunction with the annual meeting of the Federation of American Societies for Experimental Biology in Washington, D. C.

Drs. Susanne Von Schuching, Arthur F. Abt and Joseph H. Roe of the Veterans Administration Center, Martinsburg, West Virginia, reported on studies of the relation of dietary intake and blood and tissue levels of ascorbic acid to the healing of surgical abdominal wounds in guinea pigs.

Confirming observations first made by the English navy physician, Lind, in 1772, and noted in the Civil War and World War 1, the scientists found that healed wounds break down at the site of the previous incision when scurvy is induced in the animals. They also noted a higher concentration of ascorbic acid in wound and scar tissue than in other muscle tissues. A single observation on a 30-year old scar in a human has also shown this higher concentration of ascorbic acid.

The studies were conducted in young animals in the growth period; the investigators hope to make similar studies in older animals at a future date. They are currently using radioactive tagged ascorbic acid to study the distribution and rate of turnover of the vitamin in the scar and various tissues of the wounded animal, in hopes of determining the exact metabolic role which ascorbic acid plays in wound healing.

The Challenge of the Small Plant

• A. J. HAYES
President
International Association of Machinists

The greatest possible progress can be made through development of cooperative community programs and union health centers.

As of today, the over-all occupational health program is far from a success. So far as medical knowledge is concerned, we have the ingredients for success—although I do not mean by that that the need for research is ended, far from it. But I do mean that, even with our imperfect knowledge, we have it within our power to make drastic reductions in the tragic toll which occupational diseases now extract from American workers, from the employers for whom they work and from our national economy.

Working time lost as a result of occupational illness is placed conservatively at 50 million days a year. That is 10% of the total of 500 million days lost as a result of all illness. And there seems to be little doubt that a high percentage of that loss is attributable to illness among workers in small plants.

For example, Dr. Harold Magnuson, in his excellent pre-Forum paper, noted that "less than one out of 10 of all employees are estimated to have health services available to them through industry," and he added that "most of those who have such services work in large industry."

The problem, then, is fairly well isolated. It exists in the smaller plants which employ approximately two-thirds of our labor force. It consists of their failure to provide occupational health services to their employees.

Unquestionably, the problem of providing occupational health services to employees in small plants is a complicated one, and the exact method of meeting the problem will probably vary from industry to industry and community to community, depending upon the nature of the health hazards and the existence and availability of health services.

There is no doubt, under our concept of liability for the economic losses of occupational injuries and diseases, where the primary responsibility lies: it lies with the employer. But surely, the interest is not solely his. The workers have a definite stake in occupational safety and health, for however broad and liberal the compensation provisions of a state law may be—and all of them leave much to be desired—it is the worker whose life, limb and health are involved.

And, especially in the case of occupational health, the community has a grave interest. The physical and economic health of a community rests in large degree upon the physical and economic health of its citizens, and workers make up the greatest proportion of the citizens in any community. In communities dominated by a single plant or industry, occupational health may easily be a public health problem.

As a result of these widespread interests, the attack upon the problem of occupational health, especially in small plants, must be a concerted one, with the whole community and each segment of it contributing to the full extent of its health resources.

Dr. Magnuson's pre-Forum survey of the problem gives a good summary and analysis of the various methods by which the occupational health needs of small plants are now being met. After reading his paper, I could not avoid the feeling that despite the excellent qualities of some of the current methods, the over-all picture is that of a hastily improvised crazy quilt, with patches of various shades and sizes and with tremendous areas of exposure where no cloth at all exists.

The basic question we face, it seems to me, is whether we shall keep adding to and improvising on the patchwork system we have developed so far, or whether we shall develop a fresh approach to the problem of providing occupational health services to small plants.

If we decide on a new approach, it does not mean that we shall discard all that we have done so far. It means, rather, that we will switch

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from the crazy quilt approach to what might be called the jig-saw puzzle approach — that is, we shall develop a clear picture of what we want to accomplish, we shall fit existing facilities in where they properly belong, and we shall obtain the new facilities necessary to complete the picture.

All of the existing facilities which Dr. Magnuson summarized in his advance paper can be expanded and strengthened—plant programs conducted on an individual or a cooperative basis, and community programs of various types.

Personally, I feel that because of the high cost and necessary shortcomings of individual small plant programs, we can make the greatest possible progress through the development and expansion of cooperative community programs and union health centers. Such programs, when they cover a sufficient number of individuals, make possible the recruitment of full-time and consultant personnel which are often beyond the potentialities of single segments of the business community. And there is a definite advantage, too, in the fact that such broad programs, being free from business domination, are also free to approach problems of occupational health objectively. The company doctor is too often constrained—both in research and in diagnosing the causes of specific illnesses—to pay more attention to the interests of the employer who pays him than to the purely medical facts involved. But the doctor who looks for his salary or fee to a community wide or a union sponsored health program is under no such constraints.

The development and expansion of such plans is the end of the Health Services Facilities Bill of 1959, which was recently introduced in the United States Senate by Senator Hill of Alabama. I earnestly commend it to your attention.

The fundamental purpose of this Bill is to provide Federal loans to voluntary, nonprofit, prepaid, health service programs. It is difficult for existing plans of this type to obtain money for expansion and for the proponents of new plans to obtain initial financing. The reason for this lies both in the nature of the plans—being nonprofit they constitute what many bankers consider poor risks—and also because of the fact that they still face the opposition of powerful groups. In a sense the proposed Health Services Facilities Act would do for these facilities what the Rural Electrification Act did for farm power co-ops. And, while the immediate objective is to give people access to better health care in general, certainly the spread of such plans would also give us access to better facilities for expanded and improved occupational health services.

We have been discussing, so far, the means by which we may make more and better occupational health services available to the employees of small plants. And certainly that is an essential part of our problem. But it is not, in my mind at least, the crux of the problem.

Providing occupational health services to small plant employees is, as I noted earlier, complicated. It is also expensive. And here, I think, is the crux of the problem.

The paraphenalia and personnel required to set up and operate a sound occupational health service are necessarily costly. But they are even more costly to those employers who now completely escape the immediate costs of occupational illness. And there are many of them.

Many small plants — far too many — are not covered by state occupational disease compensation laws. Two states have no such laws. Twenty-one, of the remaining 46, limit coverage to the diseases specifically mentioned in the law. And the fact that a disease is covered only by specific inclusion in the law means that victims of many of the newer, hazardous substances used in industry are likely to find themselves without recourse. In addition, occupational disease compensation laws are also subject to the general drawbacks of all state compensation laws, including numerical limitations, elective provisions and limitations on medical benefits. As a result many businesses, and especially small businesses, are free from direct liability for any of the economic costs of occupational disease, and have no immediate financial reason to spend money for the prevention of such disease.

The ideal method of giving industry in general—and small industry in particular—a financial stake in the prevention of occupational illness and the provision of proper occupational health services is the enactment of a Federal occupational compensation law, applicable to all industry and without any of the qualifications found in so many state workmen's compensation laws which limit the liability of the employer to a small fraction of the economic cost.

I realize that the possibility of achieving this objective in the immediate future is small, but I think we should set our sights on it. I realize, too, that the expenses it will force on employers will be considerable. But the expense of occupational disease is already considerable. Taking Dr. Rusk's 1959 estimate, of a $4.2 billion annual wage loss resulting from lost time due to illness, and applying the 10% for illness of occupational origin, we arrive at a minimum of $420 million a year in lost wages. Add to this the loss in production and profits, and we realize that occupational illness now costs us well over a half billion dollars a year. In my mind, there is nothing unfair or unjust about imposing at least a part of this cost upon the people who are responsible for it—the employers. Indeed

it is unfair, to the afflicted workers and to society in general, that the employers should continue to escape their just liability.

In addition, under our ideal solution, the national occupational disease compensation law should have no provision for self-insurance or for individual employer merit ratings. Rating should be solely on an industry basis, to the end that large employers with good occupational health services would be impelled to share their knowledge and facilities with smaller employers in the industry in order to achieve a reduction in insurance rates.

Such a step would place before industry in general the knowledge and the facilities in the field of occupational health services which are all too often now used solely by the giants in industry to cut down their own costs with little or no regard at all for conditions in industry and society in general.

I realize that many of my suggestions and comments may seem unduly blunt. But the space was limited, and the subject is one of utmost importance. If I have offended anyone, that was not my intention. My sole purpose has been to stimulate thought and discussion on an important social problem which has been too long neglected.

Conference Board Reports

Company medical programs for employees have been greatly broadened since the turn of the century, and many American firms now are taking active steps not only to treat job-connected injuries and diseases but to prevent them, the National Industrial Conference Board reports in a recent study. Thirty-six Canadian companies and 242 United States firms provided information for the study. In addition, a number of concerns permitted the NICB to study their medical departments and services through field trips.

The employee health and medical programs maintained by these companies cover a wide range. More than four-fifths of the United States companies and almost nine-tenths of the Canadian group require preplacement physical examinations of every prospective employee including those on the executive level. Periodic physical examinations also are becoming an increasingly common practice among companies. Better than four-fifths of the cooperators give periodic examinations either to all or to selected groups of employees.

Physical examinations following temporary layoff are required by three-fifths of all U. S. cooperating companies and by more than two-fifths of the Canadian respondents. An examination at the termination of employment, however, is a less frequent practice. About 15% of the U. S. cooperators and only three of the responding Canadian firms have such examinations.

Only a handful of the cooperating American companies, and none of the Canadian firms, employ dentists full or part time, according to The Conference Board. Many respondents believe that an in-plant dental program is an additional and unnecessary expense.

More than three-fourths of the U. S. cooperating firms and two-thirds of the Canadian respondents have eye protection programs of some kind. These include not only testing of employees but, in many cases, an evaluation of each job and work area in a company to determine the hazards involved, the degree of eyesight required and the kind of eye protection needed.

Industry in recent years has become increasingly conscious of compensation risks entailed in excessive noise. Many companies have instituted programs to reduce noise in the plant and to give auditory tests during an employee's working life to determine how much hearing loss is the result of work surroundings and how much is due to his own physical deterioration. About a fourth of the U. S. cooperating companies have some kind of ear protection plan and about 11% more plan to have them. Slightly under one-fourth of the Canadian firms either have, or plan to have, such services.

Mental hygiene is considered important in many companies, although only 10 of all responding firms employ psychiatrists. The medical personnel in a large percent of all cooperating companies offer a type of counseling service designed to help the employee lead a better adjusted life.

Since the job environment is closely associated with the health of workers, attention to atmospheric conditions, working materials and processes, and physical equipment and surroundings is of concern to medical personnel. Among 199 United States and Canadian cooperating firms that have industrial hygiene programs, about 73% make the medical department responsible for them.

Many factors influence the scope of activity of the medical departments maintained by cooperating companies, the NICB study finds. These include the size of the firm, the type of business it is engaged in and the attitude of top management toward the need for a comprehensive program requiring the investment of substantial funds. A more subtle influence, but one that finally determines the extent of medical operations in many companies, is the differing philosophy of doctors, and very often of company managements, as to what a preventive health program can include without putting the company in the position of practicing medicine.

The Role of the Professional Society in

INDUSTRIAL HYGIENE

• CHARLES R. WILLIAMS, Ph.D.
Past President
American Industrial Hygiene Association

The American Industrial Hygiene Association, through research, dissemination of information and correlation of activities of allied agencies, plays a significant role in the professional life of its members.

The field of industrial hygiene is concerned with the industrial environment as it relates to the health of workers. The job of the industrial hygienist is to evaluate exposures to any physical or chemical agent which may prove detrimental to the health of employees and to take any necessary steps to provide for the control of such exposures. Because of this very broad area of interest it becomes immediately obvious that the field of industrial hygiene encompasses practically every science. Thus the national organization of industrial hygienists, which was formed in 1939 (with less than 150 members) is composed of a group of over 1,000 members whose background and training cover such areas as chemistry, physics and various biological sciences. Our individual members may be analytical chemists, toxicologists, ventilation engineers, acoustical engineers, experts in the field of radiological safety, air pollution or related fields.

When the American Industrial Hygiene Association was founded, it was organized by a group of people having extremely broad interests. They were required by the early state of development of the art to be able to handle problems in industrial plants in practically all of the areas mentioned above. As the scope of the industrial health problem has broadened, we have seen a trend in our field toward more and more specialization. It was in meeting this situation that the AIHA demonstrated its flexibility and its ability to meet the problems of its membership, and has thus established itself as a valuable and even necessary part of the equipment of practicing industrial hygienists.

The outstanding strength of this organization has been based upon the fact that there has always been extensive membership participation in its activities. This has been an association for the benefit of all of the membership. It is significant that at the present time, while the basic policy of AIHA is established and implemented by officers and a Board of Directors supported by an Executive Secretary, the detailed activities of the organization are carried on by 22 standing committees and nine technical committees. The membership of these committees comprises over 20% of the membership of the organization. This is ample evidence of the active participation which has made the American Industrial Hygiene Association the outstanding organization which it is.

Very closely related to this is the fact that it has always been the policy of the officers and directors of AIHA to explore thoroughly with the membership and to obtain membership approval of all major decisions affecting individual members. An outstanding example of this is the careful, detailed exploration of the question of certification as it may apply to our diverse membership. This has been going on for more than two years. The members of the Association have been kept informed of progress through the Journal, News Letter and special releases. Each step in the development of a certification program in the field of industrial hygiene has been approved by the membership. When final action is taken it will be taken by all the members. It will be an intelligent decision because it will be made by well informed people.

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The objectives of the Association as set forth in the Articles of Incorporation are as follows: (1) to increase the knowledge of industrial hygiene through interchange and dissemination of information, (2) to promote the study and control of environmental factors affecting the health and well-being of industrial workers, (3) to correlate such activities as are conducted by individuals and agencies throughout industrial, educational and governmental groups and (4) to bring together persons interested in the various phases of industrial hygiene.

To implement these objectives, a wide variety of activities is carried on for the benefit of the members of the Association. Many of these activities are continuous over the years while others may vary from time to time depending upon requirements.

One of the most valuable of these activities is the annual meetings held in the spring each year in various parts of the United States. These are joint meetings as part of the Industrial Health Conference. This Conference is made up of The American Association of Industrial Dentists, the American Association of Industrial Nurses, The American Conference of Governmental Industrial Hygienists, The American Industrial Hygiene Association and the Industrial Medical Association. These sessions, of course, provide opportunities for close personal contact between members as well as for individual members to present technical reports on their work in the field. In general, 70 to 75% of the membership attends these meetings depending, in part, on the geographical location.

There are 24 Local Sections scattered throughout the United States which provide the opportunity for members in more restricted geographic areas to meet more frequently. The local sections also have an associate membership which permits closer relationship between national members and individuals in related fields.

In the publication field the Association has an official journal called *The American Industrial Hygiene Association Journal.* This originally started in June 1946 as a quarterly which was an outgrowth of the Industrial Hygiene section of the magazine, *Industrial Medicine and Surgery.* The Journal is now published bimonthly and is basically a technical journal in which outstanding papers from the annual meeting and any other material of value to the membership may be published. It is issued under the supervision of the editorial committee of AIHA.

In addition to the Journal there is a group of Hygienic Guides which is a series of bulletins containing pertinent information about toxic materials to assist in evaluating the degree of hazard of industrial exposures. These guides are prepared by the Hygienic Guides Committee with the advice and counsel of the Toxicology Committee. Four are published in each issue of the Journal. They are also available as reprints.

During the past year the Association issued its first technical manual on the subject of industrial noise. This manual is the first of what is expected to be a series in the important areas of the industrial hygiene field. The Noise Manual was written by the Noise Committee and is a reference volume consisting of 10 chapters related to noise evaluation and control.

An extremely important part of the Association's work is that being carried on by its technical committees. These technical committees fall into two major categories. The first is related to the various technical phases of our work; air pollution, analytical chemistry, engineering, noise, radiation and toxicology. Development of Hygienic Guides and technical publications fall into a second category. There has also been established recently a Committee on Respiratory Protective Devices acting jointly with the American Conference of Governmental Industrial Hygienists in attempting to evaluate this whole complex field. It is expected that from time to time these committees will prepare manuals which will improve the technical performance of the members.

In order to avoid developing too narrow a viewpoint, the Association attempts to work closely with other organizations in related fields. This may involve participation in technical programs, provision of committee members in areas of mutual interest. Such relationships exist between the American Industrial Hygiene Association and the American Standards Association, the American Association for the Advancement of Science, the National Safety Council, the Nuclear Congress, etc.

It can be seen from the scope of the activities discussed above that the American Industrial Hygiene Association is an organization which is intended to provide a vehicle for exchanging experiences and information, to promote the field of occupational health and, in general, to be of service to the membership. As a result of the policies of widespread membership participation, broad discussion with the membership as well as membership decision in major policy matters, the AIHA is an organization which has more than met its responsibilities. The continued expansion of services and the steady continued growth are ample evidence that AIHA plays a significant role in the professional life of its members.

Role of the Medical Society in

OCCUPATIONAL HEALTH

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The medical society at all organizational levels has a challenge and opportunity to offer the leadership needed to promote good health in our working forces.

The subject, "Role of the Medical Society in Occupational Health," is a timely one. The continued advancement of our country toward total industrialization and the official recognition by the medical profession of occupational medicine as a specialty practice has, in a sense, "set the stage" for the inauguration of basic and uniform practice in this important health area.

The Council on Industrial Health of the American Medical Association, in consultation with its constituent members and other interested groups, has prepared certain "guides" pointing out the relationship of occupational medicine to other branches of medicine and health services. Such publications include "Scope, Objectives and Functions of Occupational Health Programs"; "Guiding Principles of Medical Examinations in Industry"; "Standing Orders for Nurses in Industry"; "Guiding Principles for Nurses in Industry"; "Guide for Evaluation of Union Health Centers" and a number of other guides which relate to the medical profession and industrial health services. However, the interpretation of these guides rests with the state and local medical societies. Basically, the policy of each county society may be much the same, but peculiar conditions in a community or district may warrant some variation in application.

In an attempt to arrive at the broadest possible concept of the medical societies in this specialty field, I have drawn upon the views of these medical society groups as well as other industrial physicians.

The subject, "Role of the Medical Society in Occupational Health," is approached from the standpoints of organization, education and liaison.

Organization: The organizational philosophy of occupational medicine in its broadest sense is very much like that of any other medical or surgical specialty in that it has committees or counterparts in the parent or American Medical Association, the State Medical Society and the County Medical Society. It affords a two-way street or channel through which there can and should be an interchange of communications in the best interest of all.

Ideally, there should be an active committee on occupational health in every state and territorial medical association and in the District of Columbia. Presently, 41 states and the District of Columbia have such committees, all of which are active in varying degrees. Logically, it follows that each county of every state should have a similar committee on occupational health. Some progress has been made toward this end during the past few years, and eventually a complete organization of committees should exist.

Education: Surveys have indicated that about 90% of the physicians in general practice take care of industrial medical cases. This must be true since approximately three-fourths of our working population is employed in industrial plants too small to have occupational health programs led by full-time medical directors.

The rapid growth and technological progress of industry, in both urban and rural areas, has brought with it old as well as new health problems. Radiation, the expanding industrial use of toxic materials, air pollution, the deleterious economic impact of illness and injury, are problems requiring the urgent attention of the medical profession. Therefore, it becomes quite obvi-

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ous that presently the most important role of the medical society in occupational health is the education of professional and lay groups in the needs, benefits, ethics and practices of this specialty.

Undoubtedly, the great majority of physicians recognize today that medical licensure does not automatically signify proficiency in all phases of practice. In general, when we realize that most branches of medicine, with the exception of pediatrics, have some relationship to industrial medicine, it becomes necessary that all physicians should know something about occupational health, i.e., the preventive and health maintenance aspects, as well as those concerned with the treatment and rehabilitation of the worker who becomes ill or injured in the course of his employment. The physician should have a reasonable understanding of the purpose of the placement and periodic health examination and health counseling, and of the factors which relate the job to health and may contribute to occupational disease or injury. He must be apprised of environmental working conditions and how any infraction of measures necessary to control certain industrial hazards may and can affect the health of the employee. The physician should recognize that the emotional health of the employee affects and is affected by both working and home environments. The worker's job safety and productivity as well as his home and community well-being, depend to a great extent on his mental attitudes and emotional health.

The true impact of occupational health is noted when we realize that the average individual spends at least a third of his time at work, and that there must be coordination of several medical activities if each person's health interest is to be rightly served. To quote William Shepard, M.D., Chairman of the American Medical Association's Council on Industrial Health, "The physician in private practice and the industrial physician should maintain the closest of communication and cooperation with each other. Both are interested in the same individual — the American working man — the former as his family physician, the latter as the physician charged with helping to protect his health at work, and with detecting and taking steps to encourage the prompt treatment of any health defects he sustains from his work. Moreover, better medicine and better occupational medicine will result to the benefit of the workman, if his family physician and his plant's physician keep in touch with each other and confer over questions related to his health." Certainly such a statement points up the necessity for more than one medical discipline in a competent occupational health program, and at the same time makes it very clear that occupational medicine is in no way competitive with private practice, but rather is a consultant and an adjunct to the private practitioner.

Education, within this field, must stem from all organizational levels, which must be effectively coordinated. Because management in industry is concerned with all matters pertaining to occupational health, its voice must become a necessary and important integrated force in any educational program in this field. Also, because a properly administered occupational health program is further dependent on the cooperative efforts of the industrial nurse, the industrial hygienist, the industrial dentist, labor, community health organizations and many other groups interested in health programs, these, too, must play an influential role in the general scheme of occupational health education.

Educational avenues which can serve this program include the following: (a) Medical societies can activate and promote better understanding of occupational health through planned programs, meetings and joint activities.

At national and district levels this has been done for a number of years, as is evidenced by meetings such as the annual Congress on Industrial Health of the American Medical Association, the annual Industrial Health Conference sponsored by the Industrial Medical Association, the American Association of Industrial Nurses, the American Industrial Hygiene Association, the American Conference of Governmental Industrial Hygienists and the American Association of Industrial Dentists. In addition, such meetings as the Gulf Coast Health Conference and the Pacific Northwest Conference on Industrial Health, which are sponsored by the local Chambers of Commerce and medical groups, are good examples of management and medicine getting together.

At the state level, the medical society, through its committee on occupational health, can be a real factor in promoting education in this medical specialty. The society at the state level can foster further education in this field through such activities as seminars on occupational health held regularly at the medical schools, sectional meetings on industrial medicine and/or papers on industrial medical subjects during the state annual and clinical meetings, scientific exhibits at such meetings, publication in the state medical journal of timely papers and brief articles on occupational health.

Although this job is not an easy or simple one at any organizational level, inroads at the "grass roots" or county medical society level are most difficult to obtain. Physicians in private practice should meet changing socioeconomic times in extending medical care to their patients. Too

often they view occupational health programs as nebulous, and meaning generally more forms to be completed, more interference by industrial managements in their medical practice, and even medical practice extended by a "third party." The role played by the local medical society in this program varies according to many factors, such as the presence or absence of industry in the community; the size of nearby companies and the attitude of their managements; the number, qualifications and enthusiasm of local physicians who are full-time or part-time practitioners in occupational medicine; and the general rapport between all parties who must have a common or joint interest. Papers and discussions on various aspects of occupational health should be presented before the local societies, staff meetings and community groups. Many have found from experience that, where possible, society meetings held periodically in the plants of local industries are quite effective in advancing this type of educational program. The discussion of general attitudes toward occupational health or more specific health problems peculiar to the respective plant or working area, as well as an inspection tour conducted by plant managers, offer fine opportunities for free exchange of opinions and ideas.

(b) The medical society should foster medical education in the general area of occupational health during the undergraduate medical school years. It is imperative that such knowledge be a part of every physician's background in starting the practice of medicine, since he will be called on to administer to the industrial worker at one time or another. Also, a broader insight into the practice of occupational medicine in the undergraduate training years will unquestionably stimulate additional physicians to elect postgraduate study leading to board certification.

Today, the demand for physicians qualified in this specialty field is great, and the supply is pitifully low. Tomorrow these demands will be even greater. The ability to supply them will depend entirely on the success or failure of organized medicine to encourage more young physicians to enter the practice of occupational medicine.

Liaison: Good occupational health is dependent upon the ability of the many medical disciplines to work together and jointly with industrial management and labor. To this end, the medical society at all organizational levels must develop this cooperative effort and technique in such a manner that medical skills and social knowledge can synergistically provide what is so necessary in this area.

Again, at national levels, the importance of liaison has been recognized for some time. For example, (1) representatives of the American Medical Association's Council on Industrial Health and the Council on Medical Service work jointly as the Committee on Medical Care for Industrial Workers on such matters as union health centers, health insurance, absenteeism in industry, multiphasic screening examination programs and executive health programs; (2) an American Medical Association Joint Committee on Mental Health in Industry is made up of representatives of the Council on Industrial Health and the Council on Mental Health; (3) the Council has representatives on the American Medical Association's Committees on Rehabilitation, Medical Ratings of Physical Impairment, and others; (4) in the same manner, the Council maintains close liaison with other occupational medical specialty associations, such as the Industrial Medical Association, the Health and Benefits Committee of the National Association of Manufacturers, the President's Committees on safety and rehabilitation, numerous committees of the Public Health Service and many other groups having a related interest.

At the state level, the medical society through its committee on industrial health should carry on similar liaison. Close working relationship should be established with other committees of the state medical society, as well as nonmedical groups having interests in this area, in effecting proper fee schedules, legislation relative to health of the American worker and the private practice of medicine, more realistic compensation laws, improved techniques for teaching industrial medicine in our medical schools, work evaluation clinics and in general better understanding of occupational health.

Although in most instances the county medical society has as yet done very little in establishing and promoting interest in occupational health, it has a responsibility to encourage liaison between its members who do industrial medical work and the various local groups and organizations — medical, industrial, civic, social and welfare and public health — which are concerned with problems of occupational health.

In summary, the medical society has a very important role to play in occupational health. By and large, the population of our country is dependent, either directly or indirectly, upon industry for work, well-being and even existence. It is apparent, then, that the preventive health services of an occupational health program influence the personal, family and community life of a multitude of people.

The Role of the Dental Society in

OCCUPATIONAL HEALTH

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The dental profession and its organized agencies have a twofold interest in occupational health: the relation of the industrial environment and of the health of the industrial worker to dental disease.

The industrial environment, through the effects of raw materials and by-products of their processing, has produced many conditions of systemic and oral pathology which have required the application of industrial oral hygiene techniques in their management. Excellent examples of such problems are damage to the oral tissues caused by the absorption of metals, nonmetallic and organic substances. Direct damage to the hard tissues has been shown in the abrasive and caustic action of industrial materials.

Industrial dental hygiene has another important application in that many systemic effects of the industrial environment make themselves manifest first in the oral cavity and the bones of the jaws. The oral tissues are becoming of increasing importance in the early detection of systemic disease. It is reasonable to expect that industrial oral hygiene will play an increasingly important part in the problems of industrial health which will accompany the rapidly expanding problems of the chemical industry and the application of atomic power to the industrial environment.

The ultimate effect of industrial processes and waste disposal on the health of the general population is still a major unknown although there is an increasing awareness of the threat to public health that lies in this area. Industrial oral hygiene in cooperation with dental public health must be prepared to add its knowledge and skills to the solution of the problems as they make themselves evident.

The organized dental profession has devoted a great amount of energy to the development, expansion and strengthening of dental divisions within state health departments. It will continue to do so with particular attention to the industrial dental hygiene activities of these divisions. The profession will also urge the development of industrial oral hygiene programs within larger industries which operate health programs.

Apart from workers' health problems arising from their industrial activity, the dental profession is seriously concerned with the effect of the dental health of the individual on his total health. If we accept the philosophy that the highest possible standard of health care must become an integral part of total health, it seems clear that industry should be concerned with the dental health of its labor force. It should be clear in this enlightened era that the efficiency of the worker is related directly to his well-being and that of his dependents.

The problems related to improving the dental health of industrial worker and his dependents are not significantly different than those of the general population. The American Dental Association and its constituent societies have established as their objective "increasing the availability of dental care to all segments of the population as rapidly as resources will permit." They conduct programs which include the three components of the problem: (1) improving the public's understanding of good dental health and its appreciation of dental care, (2) increasing the efficiency of private dental practice to meet the demand for dental care and (3) improving methods for meeting the costs of dental care.

While there is no justification for fragmenting the industrial worker from the rest of society

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in carrying out all of the components of the foregoing programs, there are certain phases which can be included to advantage in a general industrial health program.

A dental health education program to improve the individual's appreciation of dental health and sound dental care can be added to the general health education program. The effectiveness of such a program will be increased markedly if a dental examination is included in the pre-employment physical evaluation and if periodic dental examination and oral prophylaxis programs are made available through the industrial health service. Such a service should also be prepared to render emergency dental care within its organization in order to prevent unnecessary interference with the job performance of the worker. Excellent examples of such industrial dental health services, among many others, are those of the Metropolitan Life Insurance Company and Corning Glass Works of Corning, New York. Such programs also include a referral service developed with the cooperation of the dental societies for individuals who require definitive dental care.

It is the position of the dental profession that the well-developed facilities of private dental practice are the most effective source of dental care. The dental profession has had a continuing program for improving the efficiency of private dental practice and the technical and scientific capacity of the profession in the interest of more and better dental care for all segments of the population. There is no evidence that the actual practice of dentistry can be conducted better under other than dental management.

The third element of adequate dental care — that of improving the methods for meeting the costs of dental care — is receiving increasing attention from industrial management and organized labor. The relationship of employment to methods for meeting the costs of health care has been well established, beginning with the recognition of contributions to union health and welfare funds by management as reasonable and proper conditions of employment.* Since 1947 these funds have been expended through Blue Shield plans, commercial health insurance programs and closed panel medical practices to provide medical and surgical care for groups. The greatest growth of these programs has taken place in industry either through union health and welfare funds or management-sponsored programs. The past five years have seen an increased interest in the inclusion of dental care programs for employed groups and their dependents.

There has been a concomitant increase in the activities of dental societies in the establishment of dental service corporations, which are the dental equivalent of Blue Shield, as well as in the establishment of dental care programs within the scope of commercial health insurance. The American Dental Association and its constituents have established policies and developed information designed to assure such program's operation in the interest of the health of the public and in the prevention of any interference with the highest standards of dental care. The development of the best methods for meeting the costs of dental care under such programs will require that the organized dental profession, industrial and labor management and the administrative agencies cooperate fully with a complete knowledge of the individual problems involved.

There is a continuing and increasing need for expanded facilities for the education of dentists and dental auxiliary personnel. There is, likewise, a tremendous need for expanding dental research in order that preventive public health measures can be instituted and, thus, reduce the treatment load which even now taxes the resources of the practicing dentist.

The foregoing activities must be supported if an increase in the public appreciation and demand for dental care is to be met through a larger dental profession supported by more auxiliary personnel, expanded knowledge of dental disease, improved methods of treatment and improved methods for meeting the costs of dental care. The dental profession would pose the question of the responsibility of free industry operating in a free and democratic society in furthering the freedom of such closely related supporting activities as health services. Can a free industry continue to exist in a society which depends upon government to meet the costs of the peripheral services which contribute to the integrity of the labor force as heavily as the health professions, or must that industry also make its contribution to support private dental education, dental research and private dental care?

In summary, then, the role of the dental society in occupational health is the same as it is in the health of all segments of the population; to improve the dental health of the individual as a part of his total health. This goal calls for increasing the availability of dental care to all people who work and for effecting improvement in the methods of payment accessible to them. It also calls for cooperation between the health professions, management and labor.

*American Dental Association, Council on Dental Health. *Group Dental Health Care Programs.* Chicago, American Dental Association, 1955.

The Role of the Nursing Organization in

OCCUPATIONAL HEALTH

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Several professional organizations are of interest to the occupational health nurse. These include the American Nurses' Association, the American Association of Industrial Nurses, the American Public Health Association, the National League for Nursing and the National Safety Council. All have programs that are planned to serve the professional needs of nurses who work in industry. The common goal of these programs is increasingly better nursing care for people working in industry.

Facts and Problems

Occupational health nursing is the application of nursing and public health procedures for the purpose of conserving, promoting and restoring the health of individuals and groups at and through their places of employment. In common with other areas of public health nursing, it places emphasis on prevention.

Fact 1: Every profession has the responsibility of defining its own functions and scope of practice, and for setting, improving and maintaining its standards. Through their representatives in the professional nursing organization, occupational health nurses throughout the country have set forth statements of functions, standards and qualifications which serve as guides to the best nursing practice in all situations.

In addition to enabling the occupational health nurse to evaluate her own activities, these statements provide a basis for determining curricula for nursing education, the content of laws pertaining to nursing practice, court decisions on what constitutes safe nursing practice and job specifications and descriptions. These statements reflect the profession's desire to provide better health care to the nation through improved standards of practice.

The problem is to have these accepted and implemented by the nurses.

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There is concerted effort to get as many practitioners as possible to study the statements in the light of their own practice. They are being encouraged to take advantage of district section meetings and other opportunities for interchange of information to discuss qualifications and jobs in relation to the statements.

The functions of the nurse will depend upon the policy of management governing the extent of the occupational health services, and the composition and size of the professional staff. The occupational health nurse must strive constantly to retain the role of nurse and should not accept employment that requires her to assume responsibility for service outside the sphere of her professional training and experience. Management should not employ a nurse for the performance of designated services without first investigating her qualifications and experience to perform those duties.

In industries too small for a full-time nurse, nursing services are sometimes provided to the workers through cooperative plans backed by groups of industries, insurance companies, labor organizations, health departments and private physicians. These programs vary considerably. A few industrial nurses work part-time for several small companies. Some visiting nurse agencies offer part-time nursing services to the smaller industries; under such arrangements a public health nurse spends four to five hours a week in the plant giving nurse service. Since medical functions, such as diagnosis and treatment, are the prerogative of the physician, it is necessary that the nurse function within the framework of some type of medical direction.

The 1957 census conducted by the United States Public Health Service was based on actual and estimated counts from questionnaires sent to state and territorial health and labor departments. It reported that 16,223 professional registered nurses were employed by industry full time in 45 states, the District of Columbia, and

the Territories of Hawaii and Puerto Rico. North Dakota, New Mexico and Alaska reported no industrial nurses.

Fact II: The professional organization must stimulate members to want to improve occupational health nursing services.

The problem is that one-half to two-thirds of the occupational health nurses work alone. Many factors have influenced the growth of occupational health nursing in the United States — from one nurse in 1895, to 1,200 in 1918, to over 16,000 in 1957. The nurse is a key member of the occupational health team. She applies public health principles and adapts nursing practice to serve the health needs of the workers in the industry that employs her. The worker's health has become increasingly important as industrialization has spread.

There are not many fields in nursing that offer a greater challenge or responsibility than occupational health nursing. Helping workers to want and know how to conserve and promote their own and their families' health is an important nursing activity. Occupational health nursing's potential area of influence is the 70,000,000 American workers, who, with their dependents, equal about two-thirds of our total population.

With the promotion of health and prevention of disability recently added to the occupational health nurse's duties of emergency care and treatment, concern with the employee's health is no longer limited to his working hours. He is recognized as an individual with personal and family health needs twenty-four hours a day. Since no one person or organization can meet all of those needs, it is necessary to foster effective relationships within the community.

Industry is an important segment of the community in which it operates, and the health of the workers in that industry must depend in large measure on the numerous health and welfare facilities and agencies within the community. Thus it becomes an important objective of the occupational health team to be familiar with the community's health, safety and welfare facilities, and to work cooperatively with the various agencies providing them.

It is the responsibility of each nurse employed in public health or occupational health services to look to her own situation to discover how best she can bring about sounder relationships in her own community. No agency functions to full capacity when it works alone.

Fact III: There must be further education of the occupational health nurse.

The problem is that most of the nurses have to learn about occupational health nursing by the trial and error method. It is the exception rather than the rule for a school of nursing to prepare its students for general practice in occupational health nursing. Faculties responsible for nursing education programs should provide learning experience for students.

Keeping abreast of developments in science, industry and her profession is an important aspect of the duties and responsibilities of the occupational health nurse. She often works alone and has little opportunity to discuss developments with others. It is most important that she find the time to go to institutes and workshops as well as meetings of her professional organizations where these subjects are presented, and that she have the opportunity to broaden her professional understandings.

The nurse in industry is a professional person who can do a great deal, but only if her potentialities are recognized and utilized by both the medical profession and the industry employing her. The possibilities are endless.

Fact IV: The professional organization promotes legislation and speaks for nurses in regard to legislative action concerning general health and welfare programs.

The American Nurses' Association has supported bills to grant financial aid to nursing education programs, and to grant federal scholarships to graduate nurses to prepare for administrative, supervisory, teaching and public health positions.

Through the efforts of their organizations, the activities of individuals and groups of nurses are multiplied in the continuing attempt to promote better nursing care for patients. Today there is a law licensing graduate nurses in every state. Nurses throughout the country are working to improve these state licensing laws, and they have extended their efforts to other areas of state legislation. Mandatory licensing laws define the practice of nursing and prohibit unlicensed persons from engaging in such practice.

In summary, the role of the nursing organizations in occupational health is a very valuable one. Organizations which are set up in states and districts can be consulted on nursing problems and personnel. They are working for the better preparation of occupational health nurses; conducting workshops and institutes to give them an opportunity to broaden their professional understanding; defining the functions, standards and qualifications, including the duties and responsibilities for occupational health nurses. Through legislative activity they are working to provide better nursing care for patients. Finally, these organizations are promoting all nurses to work together to improve nursing care for the American public.

The Role of Organized Labor in

OCCUPATIONAL HEALTH

• WILLIAM A. SAWYER, M.D.
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American workers are demanding good health at a price they can pay; American industry wants a healthy working force functioning at its most productive level.

In 1952, Mr. Al Hayes, President of the International Association of Machinists, addressed the Annual Congress on Industrial Health of the American Medical Association in a speech entitled "The Company Doctor." Mr. Hayes said: "I believe that the problems of industrial health can be dealt with more constructively if we recognize that they are pieces of our national health picture. An industrial worker does not pick up his heart or his lungs or his body at the factory gate when he checks in. Nor does he leave them there when he checks out at the day's end. His health on the job is one-third of the picture of his health throughout the day. Industrial health is tied up with home health. The worker's health cannot be separated from a larger consideration of the health of his wife and his children and, indeed, the health of his neighbors and the community and the nation in which he lives." Thus Mr. Hayes, speaking as a labor leader, raises his objection to the fragmentation and inadequacy of health care for workers as it now exists.

Generally today we consider occupational health as concerning itself chiefly with accidents and hazards of the job. Diseases like ulcers, diabetes, arthritis, heart and kidney diseases, are considered nonoccupational in nature, but may nevertheless have occupational connotations. A worker with an ulcer doesn't leave his symptoms at home when he goes to work. His so-called nonoccupational disease may very well interfere with his ability on the job and be responsible for proneness to accidents and absence.

For the most part, organized labor does not consider its role in occupational health to be particularly significant. Since occupational health programs are the outgrowth of workmen's compensation law requirements, and must be provided by the employer, union labor has had little part in them. Unless there are plant safety and occupational health committees with representatives of both union and nonunion employees, the worker has no voice in in-plant occupational health programs.

We must remember that generally in-plant occupational health services are exclusively instituted and managed by the employer, because of his responsibility for accidents and occupational illnesses under the workmen's compensation laws. In this area, labor regards itself as the recipient rather than the participant. Labor feels that such programs are primarily for the benefit of employers — to save money on workmen's compensation costs. They acknowledge the rightness of such a point of view, but without a voice in its administration they do not have complete confidence in it. They do not feel they are a part of such a program and often are inclined to mistrust the medical opinions expressed by the company doctors. Enlightened management does not encourage this partisan attitude, and expects their medical representatives to present impartial and trustworthy testimony. In the long run, the best interests of the workers are the best interests of the company.

For the most part, occupational health services are found in the larger industries. Generally, the greater the number of employees, the more necessary is such service. Since the majority of workers are employed in small plants, only a relatively small percentage of

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those gainfully employed have the benefits of an occupational health program. Small plants show an accident frequency rate two and one-half times as great as large plants with organized safety and health programs. Too often the small plant management feels they have solved their safety problems when they purchase workmen's compensation insurance, as required by law.

The above statements indicate some of labor's concern with occupational health programs. Extensions of the scope of in-plant services to cover nonoccupational sickness and accidents, at least of an ambulatory nature, are receiving more and more thought. Labor's chief goal seems to be comprehensive medical care on a group, prepaid basis.

There is an increasing speculation about the advantages to the worker of over-all health protection. We are all interested in better health for the worker, whether it be management-sponsored, as in present day "in-plant" occupational health programs, or union-sponsored programs for so-called nonoccupational illnesses and accidents. Whenever industrial physicians and others interested in better medical care for workers get together, there is evidence of concern for the health of the whole man — round the clock — not just while he is at work. There is also concern for the health of his family. I think this is the result of several factors.

First of all, no industrial physician can very long ignore the significance of problems involved in absence due to sickness and accident of a nonoccupational nature. Sickness of whatever origin has a relationship to quantity and quality of production. Management, as much as the worker, is affected and involved by any and all sickness and accidents.

Second, if management, through collective bargaining, is paying any part of the cost of nonoccupational illness and accidents, it is logical that it should be increasingly concerned about the effectiveness of the benefits provided. It should become increasingly concerned whether the money spent is providing an adequate return.

Third, with labor unions' concern about the inadequacies of in-plant occupational health programs and their desire for more and better nonoccupational health benefits, there is gradually emerging a belief that the over-all health of workers should not be arbitrarily and inefficiently divided as it now is. Workers are expecting good working environment with protection against occupational hazards. They are expecting preventive health maintenance on the job, and the provision and availability of quality medical care on a prepaid basis off the job.

Collective bargaining relationships between management and labor have been utilized for many years to advance the cause of health and safety. As a result, more than seven million trade union members have collective bargaining agreements which contain safety and health clauses. "As the result of the collective bargaining of labor unions," says Dr. Harold Magnuson, Chief of the Occupational Health Program, United States Public Health Service, "industry has become very much aware of, and responsive to, the health needs of its workers." This recognition is resulting in the development of industrial health programs whose "primary aim is not only to prevent disease but also to anticipate it. Formerly limited to preemployment examinations, traumatic surgery and compensation medicine, such programs today are concerned with the total health of the worker. Thus, the preemployment examination, designed chiefly to screen out of employment all but the most physically fit, has given way to the preplacement examination, which proposes to match the worker to the job so as to best utilize his ability and to safeguard his health."

There is great need for educational material pertaining both to job hazards and personal health. Three examples of the kind of material valued greatly by union members are pamphlets on (1) *Noise*, by the Boiler Makers Union, (2) *Dermatitis*, by the Machinists Union and (3) *Health and Safety for Chemical Workers.*

As a further step toward building over-all health, broad industrial medical programs make available to the worker health education and counseling services, with referrals to appropriate community health and social resources. The value of such services in helping the worker solve his health and emotional problems, as well as those of his family, has been repeatedly demonstrated.

Far too seldom are the facilities and resources of our communities known to the average worker and his family. Through better acquaintance with the many agencies, expertly equipped to guide and serve people, workers can augment their own efforts by access to the many specialty groups. As the result of social, economic and technologic developments in our nation — among these the growing number of women in industry, the increasing mobility of American workers and the changing character of industrial hazards — there is a growing need for industrial health services to become family health services.

Three or four outstanding examples of comprehensive medical services sponsored by industry come to mind. Endicott-Johnson Company operates a complete medical service (occupational and nonoccupational) serving over 17,000 employees and their dependents. Full medical care, including hospitalization is available to those who are eligible.

The Tacoma Smelter in Tacoma, Washington, supplements and combines its all-inclusive industrial medical program with the Pierce County Medical Society-sponsored, competitive, service-type health insurance plan, which provides complete medical care. This county medical society plan serves over 700 industrial groups, covering more than 22,000 men and 8,000 women employees — the bulk of the employed population in a community of about 200,000.

Consolidated Edison employees receive full medical care under the Employees' Mutual Aid Society, Inc., which provides emergency treatment, routine medical care at home or office, house calls, x-ray and laboratory examinations, specialist and hospital care, ambulance service, prescription service, blood transfusions, oxygen service, ordinary dental care. This care is furnished by a staff of more than 175 physicians, plus regular hospital staff physicians in 30 or more Grade A hospitals. Altogether more than 400 physicians and dentists participate.

In a paper entitled "Emerging Industrial Health Problems," Henry N. Doyle, Assistant Chief of the Occupational Health Program, United States Public Health Service, said in 1957: "Concurrent with this labor trend (to place increased emphasis on preventive health services and industrial hygiene practices), there is an increased awareness on the part of industrialists of the need for complete industrial health services. Within recent years we have seen many of our large companies change the philosophy of their industrial medical programs; their services, which previously had been largely limited to the care of traumatic and acute illnesses, now include broad preventive health measures. Much needs to be done, however, to extend such services to a large proportion of our working population."

Summary

In the development of occupational health programs and labor's interest in them, the situation we find ourselves in today is not new despite the great amount of publicity regularly given to union demands for health plans, and to national health insurance. What we face now is the culmination of many separate movements that have been building up for years.

American workers are demanding good health at a price they can pay. American industry wants a healthy working force functioning at its most productive level. American public health officials and associations desire optimum health for all at the least possible tax burden. American medicine is showing an increasing interest in the health of industrial workers and in union health plans.

None of us can perhaps visualize where these movements will take us, but we are all aware of the fact that powerful social forces are in motion, impelled by urgent needs.

Resistance or Deficiency

Diabetic symptoms in overweight adult diabetics may be due to insulin resistance as well as to a deficiency of insulin, suggests Michael Somogyi, M.D.

Dr. Somogyi and G. E. Gruenfeld, M.D., both of the Jewish Hospital of St. Louis, reported at the Washington, D. C. meeting of the Federation of American Societies for Experimental Biology that fatty infiltration of the liver, such as that due to a high fat-low carbohydrate diet, produces insulin resistance. This results in impaired carbohydrate tolerance, irrespective of a normal insulin supply.

It has long been known that when healthy persons are fed high fat, low carbohydrate diets for a week, their carbohydrate (sugars and starches) tolerance deteriorates, so that they exhibit the symptoms of mild diabetes. Returned to normal diets, they regain their carbohydrate tolerance.

Attempts to produce this condition in dogs were at first unsuccessful, apparently because the dog has more "lipotropic agents" (substances which help metabolize fat, and protect against fatty infiltration of the liver) than man. The investigators removed the source of these lipotropic agents by techniques which left the dog with a sufficient supply of insulin.

As anticipated, these dogs did suffer fatty infiltration of the liver and showed deterioration of carbohydrate tolerance. Experimental evidence also showed that the dogs had simultaneously become resistant to insulin action, Dr. Somogyi said. Their condition was so similar to that seen in humans on high fat-low carbohydrate diets that he concluded that fatty infiltration of the liver was the cause of insulin resistance cases.

The Role of the Official Agency in

OCCUPATIONAL HEALTH

• HENRY A. HOLLE, M.D.
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Texas Department of Health

"The health of the people is really the foundation upon which all their happiness and all their powers as a state depend."

—Disraeli

The role of government in occupational health is an ever changing one. The objective is to prevent and control occupational disease and injury. This goal is attempted at the official agency level through enabling legislation, administrative regulation and technical consultation. The program of the local official agency must be geared to meet the specific needs of the community it serves, but the broad objective must be kept in full view. Physical fitness of the employee for the specific job he does goes hand in hand with programs to provide a safe environment for him. This is a partnership job between the employer, the employee and the official agency.

Governmental efforts should insure that occupational health is "of the people, by the people and for the people." For purposes of discussion one might consider occupational health to be adequate protection and maintenance of the physical and mental health of the worker, permitting his useful productive work while he continues emotionally and psychologically suited to his job. The responsibility for good occupational health rests squarely upon all segments of the community which are involved, including the government. It is logical, therefore, that government should be prepared to provide the leadership in establishing and maintaining good occupational health in such a community. It should provide the stimulus.

The official agency in government has an obligation to pin-point the problem by defining hazards to health created by employment either through processes or procedures, by essential materials, or by workers themselves. This complex responsibility requires that we take cognizance of the "whole man." It demands also a recognition of off-duty factors which influence health. I use the word "recognition" because I do not wish to imply that occupational health programs, either in or out of government, should encompass full responsibility for the health of employed persons while on duty or off duty. However, responsibility for on-duty standards has been determined long ago to be that of government. But what government and what governmental agency has this role in occupational health? In my judgment the health agencies of federal, state and local governments have the major role. Of course, other governmental agencies have important related roles. But if the health agencies do not adequately discharge their health responsibilities, the federal, state or local community either will suffer damage or they will be obliged to establish an alternate agency for the health purpose. Economy and effectiveness might suffer impairment through such fragmentation of health functions.

A role of leadership includes setting examples. It follows then that each government as an employer should provide a program for its own employees. In other words it should practice what it preaches. It should also exert every appropriate influence to promote good occupational health for all other employees within its jurisdiction. The ultimate and actual provision of the occupational health services on a continuing basis is a responsibility of the employer, whether governmental or nongovernmental.

At this point it seems appropriate for us to examine briefly the role of occupational health in government at the federal level. The earliest such occupational health program was that provided merchant seamen by the Public Health Service. The oldest extensive and continuing

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program has been that furnished to military personnel by our armed forces' medical services, geared directly to their military occupations. Programs have been maintained later by the Tennessee Valley Authority and by the Panama Canal and Panama Railroad Company. The Public Health Service established its office of Industrial Hygiene and Sanitation in 1914. Since that time it has carried on research on the environmental aspects of occupational health. More than 100 diseases and conditions have been systematically studied through the epidemiologic approach. Current studies also emphasize the effects of ionizing radiation, vibration and noise.

The Public Health Service has also assisted state and local governments to establish occupational health programs and has provided limited consultation services to them. In addition to the central office in the Bureau of State Services in Washington, it also operates the Occupational Health Field Headquarters in Cincinnati, Ohio, and the Occupational Health Field Station in Salt Lake City, Utah. It renders consultation services from all three of these units and also provides special short term intensive training courses for occupational health personnel in Cincinnati.

Soon after World War II, Federal government agency heads were authorized to establish by contract or otherwise, after consultation with the Public Health Service, programs for the purpose of promoting and maintaining the physical and mental fitness of Federal employees.* The limitations of the services are defined, the programs are authorized only where sufficient numbers of Federal employees justify them, and Public Health Service recommendations are required to be considered. Hence, this role of the Public Health Service's Occupational Health Program was added to that already created for it prior to and during World War II. In addition the Public Health Service maintains Health Units in 20 buildings in Washington, D.C., serving approximately 50,000 Federal employees. A Federal Employee Health Service is provided at the Denver, Colorado, Federal Center. The General Services Administration has units at Boston and New York City. The Old Age and Survivors Insurance at Baltimore, and the National Institutes of Health at Bethesda operate independent programs. The Post Office Department serves 500,000 employees through programs ranging from fully developed occupational health services to simple first aid services. The Department of Defense with more than a million civilian employees has established programs where appropriate, directed by Army, Air Force and Navy medical staffs. These are found in chemical and munitions, ordnance, rocket and missile, aviation, armament and similar establishments. The President of the United States on January 9, 1950, approved policy covering these Federal programs.

The present occupational health role of state governments varies considerably. In a May, 1958, report from the Public Health Service covering 54 states, territories and the District of Columbia, 16, nearly 30%, had no definable program or staff; 38 states have full time staffs, four in labor departments and 34 in health departments; 27 of the 34 health departments have engineers, 12 have nurses and 11 have physicians. Only four state occupational health agencies in health departments had a physician, nurse and engineer. The coverage is predominantly environmental and chemical; less medical, nursing and health counseling. These data are especially significant in the light of the need for leadership from official agencies.

Local organization in the United States is even less advanced. Four state agencies have full time regional or district offices and only 17 cities and 10 counties have full time staffs devoted to occupational health, so far as could be determined. No adequate data are available as to health programs provided by state and local governments for their own employees.

So much, then, for what the role of government is. What should it be? It is not expedient to cover here the details of scientific factors or services involved but it is important to emphasize broad, general responsibilities.

The Federal Government, through the Public Health Service, should seek, obtain and make available to state health agencies the latest knowledge and information on all occupational health matters as rapidly as developed. The Service, after periodic consultations with the states, should undertake directly or by grants-in-aid, more basic and applied research pertaining to foreseeable occupational health problems.

The Public Health Service Occupational Health Program should expand its consultation services to states, especially on complex problems and unusual or serious incidents. For instance, it should be in a position to assist a state in making a special study where additional information is needed to support such state agency in the solution of a problem peculiar to the latter's occupational health program. It should schedule more training courses in subjects demonstrated to be required after periodic consultations with the states, utilizing the maximum facilities that states themselves can furnish. These should be conducted in a number of locations and they should be designed to serve the greatest number of people most economically

*Act of August 8, 1946: Public Law 658, 79th Congress, 2nd Session — Ch. 865.

and rapidly. It should be prepared to make upon request a periodic consultative review of any existing state program and to advise upon new projects to be initiated in such state. It should provide advice and recommendations aiding the state to plan for health protection for workers rendering vital services and essential production despite critical disaster or other emergency.

The Public Health Service should organize nation-wide programs, and furnish prompt reports to participating states resulting therefrom, on all interstate hazards endangering health or residents, created by a trade, business or occupation. Examples already undertaken include the national air surveillance, radiation fall-out and milk-sampling (radiation) networks.

The major role of state governments should not be limited to providing compensation to employees on the assumption that they will, inevitably, be suffering occupational diseases and injuries. This basic philosophy is wrong because the reason for such compensation is injury to health or death. Nevertheless, only a few states have enacted legislation designed to insure a state role in preventing and controlling occupational disease. Obvious as the need for this may be, the vacuum results from opposition or apathy of employer, employee, personnel of insurers or the state compensation agency, or other groups. Equally evident are the adverse effects upon individuals, families and communities from social economic, ethical, mental and, yes, political viewpoints. Most responsibility has been passed to the employer. Regardless of how adequately he does or does not preserve his employees' occupational health the costs are passed on to the consumer. If he does not preserve their health the costs are higher, to the consumer, the employee and the employer.

The state government role should include the designation of an agency to administer the occupational health program at the state level and to integrate it into local public health programs. It should enable the agency to formulate reasonable but authoritative rules and regulations designed to prevent occupational diseases. It should establish minimum standards to enable the agency to investigate and study adequately working environments to evaluate and control hazards to health, establish adequate reporting of occupational diseases with or without compensation claims and to assist, authoritatively, the workmen's compensation agency in adjudication of claims. It should define the compensable occupational diseases and just methods of filing claims therefor, establish the liabilities and responsibilities of the employer but also relieve him where he is not responsible and provide for impartial state diagnosis of occupational disease and evaluations of disability.

The state agency should take steps to stimulate maximum local health department implementation of an adequate local occupational health program; to assist local health authorities through training programs, where necessary, through consultative services especially in unusual circumstances or incidents, and in serious or complex cases; to obtain consultants from Federal agencies and elsewhere when required to aid in state or local program; to furnish short-term loans of expensive equipment and guidance in its use where local procurement is delayed or would be uneconomical; and to insure continuity and integrity of the occupational health of state and local government's personnel in the presence of disaster, critical emergency or enemy attack.

The local government role should be a consultative one to, as well as direct health supervision over, community and employer-provided occupational health programs. This should be achieved by surveillance and direct observations assuring compliance with federal and state laws and regulations, and adherence to prescribed standards; by investigations, studies and evaluations of working environments of employees, followed by recommendations for elimination or control of occupational hazards to health, and further followed to determine results thereof; by integration of occupational health into the total public health program; and by close liaison with the state agency concerned with occupational health, to permit the latter's full information and mutual understanding of local problems and the adequate solution thereof. Local governmental provision of clinical services direct to privately employed persons is not visualized. Whether a government is federal, state or local, each must relate its own occupational health program to the activities of the others. Each must correlate its own plans and activities appropriately with those of employers, employees, civic organizations, and with professions (medical, dental, nursing, legal, engineering, veterinary, chemical, physics hygiene. It must work closely with related occupational groups, such as safety, insurance, group health, or medical care programs, as well as with voluntary agencies concerned with workers' health.

In summary, the ever-changing role of government in occupational health has been outlined all too briefly. Federal, state and local responsibilities have been discussed, and the current activities of some of them have been mentioned.

OCCUPATIONAL HEALTH PROGRAMS

for Agricultural and Other Nonplant Workers

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A discussion of the health and medical care problems of workers who cannot be reached through organized industrial health programs.

From an economic standpoint, the American population may be divided into two groups. One encompasses both paid and unpaid workers contributing to economic progress. The second includes the two groups at the extremes of this segment: nonproductive children and older persons, as well as chronically ill and disabled persons.

The concern of this paper is with that portion of the productive segment that cannot be reached through an organized industrial health program, either full or part time. This group, which is not accessible at or through a central place of work, includes farmers, housewives, domestics, migrant workers and other nonplant workers.

The development of occupational health programs for these nonplant workers could be approached from two standpoints: (1) determining and controlling those health problems peculiar to the occupation and (2) identifying and mobilizing occupational groups as action bodies for the solution of their general as well as occupational health needs. While the first is concerned solely with occupational causes, the latter permits the application of the broader concept of occupational health which encompasses all health influences. Just as employee health programs in industry direct their attention to the total health of the worker, the occupational group — be it a professional, trade or farm association, a women's club or auxiliary — may be effectively utilized as a channel for the advancement of the general health of its members as well as the prevention and control of occupational diseases among them.

This dual approach to the health problems of nonplant groups is best illustrated for the agricultural workers, since, in addition to their general health problems, they are exposed to numerous, distinct occupational health hazards in their working environment.

Agricultural Workers

Growing mechanization and the introduction of numerous toxic chemicals on the farm have greatly increased the occupational health and safety hazards associated with agriculture. The number of farmers killed on the job in 1957 exceeded that of any other single occupational group. Expanding agricultural application of insecticides, fumigants, herbicides, rodenticides, fungicides and even fertilizers has resulted in no less than one-quarter million brand-name chemical products now being used. Nearly all present some degree of danger and some must be classified as extremely hazardous. These toxic hazards are generally little recognized by agricultural workers. Although most of these chemicals carry warnings on the container labels, the tendency is to pay little or no attention to the labels, particularly if a material has been used previously without untoward incident. Moreover, the methods of application are almost as varied as the materials used. Many of these methods present dangers that would not be tolerated in manufacturing establishments.

In addition to chemical hazards, a number of bacterial diseases are associated with agricultural work. Brucellosis, or undulant fever, is thought to be the most common. One factor contributing to the incidence of brucellosis is that, rather than call upon a veterinarian, many farmers themselves vaccinate cattle and thereby risk accidental infection. Other diseases of significance on farms include anthrax, erysipeloid,

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leptospirosis, tularemia, bovine tuberculosis and various forms of salmonellosis. By occupation, the farmer is also exposed to viral and rickettsial diseases, including equine encephalomyelitis, psittacosis, Q fever and Rocky Mountain Spotted Fever. There is a long list of mycotic diseases, of which actinomycosis and histoplasmosis are examples. A number of parasitic diseases also are potential farm hazards.

Farm work also involves exposures to physical agents, such as extremes of temperatures. Heat exhaustion and heat stroke undoubtedly affect many farm workers. Another condition of possible significance is skin cancer, produced by prolonged exposure to the sun's rays.

The danger of infections from injuries incurred on the farm must be considered much greater than that in industry. This danger is heightened by the nature of the working environment, the inaccessibility of first aid facilities, and the absence of interest in giving prompt care to minor wounds and other dermatological conditions. The prevalence of the tetanus hazard on farms is well recognized by physicians, but other organisms also must be considered.

In addition to purely occupational influences, the health of many farm workers is affected by environmental factors that are much less significant among present-day urban workers. Farm laborers, especially migrant workers, sometimes must live where housing and sanitation levels are far below those now considered as acceptable or safe.

Little is known of the general health status of agricultural workers in relation to the rest of the population. The current National Health Survey will provide much needed data for rural-urban comparisons. It is interesting to note, however, that the average annual expenditures of farm families on health care was $240 in 1955. On the average, more was spent per family for physicians, excluding surgeons, than for any other item.

The Migrant Problem

Approximately one and one-quarter million migrants follow the crops each year in the United States. Three-quarters of a million are United States citizens and their dependents. Generally, they come from racial, national or socioeconomic minorities. The remaining one-half million are foreign Nationals, chiefly from Mexico. These are single men, screened at the border for physical defects and provided work contracts under an international agreement. Migrants supplement the regular farm labor force during peak periods of the crop season in about 900 counties scattered over 44 states. Areas requiring outside workers face serious crop loss if migrants do not appear when they are needed. Economically important as they are, migrant workers and their families are often rejected by the communities which depend on them. They typically have little education and frequently differ in cultural background from the local residents of the areas where they work. Some speak a strange language. Their living standards are often lower than those of permanent residents. Although their incomes are low, local residence laws usually bar welfare aid. Their numbers may overwhelm a normally small resident population. They present perplexing problems even to community agencies which have the legal authority and the desire to extend services to them.

Accidents and sickness frequently occur among migrants as a result of their living and working conditions. Continuity in health services, however, is hard to achieve when a family never stays in one place for more than a few months at a time. Some communities may provide them emergency medical care, but few places make available the services they need to maintain healthful family living.

Few migrants are immunized against common communicable diseases. The health problems a migrant represents to communities over the country can be multiplied by the number of times he moves. This movement is conducive to the spread of disease.

According to a 1938 Public Health Service study, disabling illness rates for interstate family transients were nearly twice those for residents of moderate or comfortable economic status and one and one-half times the rates for residents of low economic status. Rates for epidemic and digestive disease and for accidents were about twice as high among transient families as among residents. In a 1940 comparison of disabling illness among unattached transients and residents, the greatest disproportion appeared in the diagnostic group of epidemic diseases. The five leading causes of disabling illnesses in this group were pulmonary tuberculosis, local infections (cellulitis, furuncles, etc.), gonorrhea, syphilis and malaria.

Recent reports confirm that the health level of migrants is below that of permanent residents of a community.

Occupational Health Programs for Agricultural Workers

Identifying and Meeting Health Needs: Various studies have been carried out by official agencies and universities in selected areas to identify the occupational and general health needs of rural residents, and to determine how the need for health services can be met and how existing programs can be improved.

Pilot studies conducted by the U. S. Depart-

ment of Agriculture and the Public Health Service show that the agricultural counties studied have on the average only about half as many physicians, dentists and nurses per 100,000 population as the average for all counties in the nation. Progress in the organization of local health services in rural areas has been disappointingly slow. To identify the obstacles to the extension of public health services to these areas, the Public Health Service has been conducting a study in a county of the Great Plains, that section of the country where local public health services are the least developed.

Among locally-sponsored studies, the South Dakota State Health Department, in cooperation with the Public Health Service, recently developed information on occupational health problems in agriculture in that area and explored methods of coping with them. A major finding was the lack of information among farm workers concerning potential health and safety hazards on the farm and means of protecting themselves to prevent injury and illness. Also, the Institute of Agricultural Medicine, established at the State University of Iowa three years ago, has undertaken exploratory studies of rural health in the state, with identification of major needs as its first concern.

Further Action Needs: In addition to these studies, agricultural communities may profitably survey their own situation to determine the need for further local studies. Possibilities to explore include: (1) establishing institutes of agricultural health in state universities, (2) establishing and strengthening occupational health services in the state health department to cover agricultural as well as industrial activity, (3) stimulating voluntary health agencies and other community groups to work more closely with agricultural experiment stations to carry out research on the various health and safety problems of rural groups, (4) working with members of local rural development committees to inaugurate needed health projects in cooperation with private physicians and other community health resources and (5) attempting to achieve better communication of information and correlation of efforts among various groups concerned with farm health problems, such as farm extension services, land-grant colleges, colleges of medicine and health departments.

Once the needs have been defined, further action should be considered to narrow the gap between the development of medical knowledge and its application. Considerations in this area include:

(1) Are existing health facilities — hospitals, health centers, availability of private physicians, voluntary agencies, public health services, etc. — adequate to take care of all the health needs of the rural community, including the problems of migrant workers? The Public Health Service considers that the strengthening of health services for all rural inhabitants is a basic objective, rather than establishing special services for migrants.

(2) Does some mechanism exist for the economic provision of medical care and preventive services to the rural residents?

(3) What can hospitals and health centers do in extending occupational health services to nonplant workers? An example of the kind of "preventive" activities which can be centered in a community hospital is the program of the Hunterdon Medical Center, Flemington, New Jersey. Originated through citizen action, the Center represents a new formula for health service in a rural community. It affords a medium by which patients remain under the care of their family physicians, who, in turn, have the complete cooperation of a full-time specialist staff. The Center is attempting not only to treat diseases by early recognition and care, but also to prevent illness by teaching and implementing the various measures which constitute preventive medicine.

(4) Can the Mobile Unit serve as a facility for the extension of occupational health services to the nonplant worker? Can facilities of this type be provided by community groups, such as voluntary agencies, official and professional agencies, civic organizations and insurance companies?

(5) How can manufacturers, builders, suppliers, fabricators, blenders, packagers, etc., be encouraged to cooperate among themselves and with active programs to reduce the potential hazards in the nonplant consumption or use of these goods and services?

(6) What legislative changes (enabling or other type) might be needed to extend adequate occupational health services? Thousands of agricultural and other workers are still unprotected by workmen's compensation laws.

(7) How can individual growers and growers' associations hiring farm workers be encouraged to help in achieving environmental and other improvements leading to better worker health?

Utilizing Action Groups: Finally, there is need to identify and mobilize occupational groups as action bodies for the solution of their occupational and general health needs. Such groups hold great potential for motivating their members, using appeals geared to their particular interests, to seek optimal health for themselves and their families. They also represent a potential sponsorship mechanism for the economic provision of preventive health services as well as medical care to their members. Just as some professional organizations

now make available to their membership low cost life insurance, it is reasonable to expect that some may be stimulated to encourage their members to have periodic health inventories and to visit the physician at the first signs of illness by making available to them low-cost prepayment coverage.

For rural residents these occupational groups include such organizations as the Farm Bureau and Future Farmers of America, growers' associations, 4-H Clubs, extension clubs, home demonstration clubs, women's clubs and auxiliaries, and school-related organizations.

A Long-Range Plan: In addition to taking much-needed action to solve some of these pressing problems today, consideration should be given to a long-term educational approach, which, in the long run, holds the greatest promise of effectiveness. This approach would cut across all occupational groups and walks of life. It would be directed at creating health and safety consciousness in individuals during a period in their life when these habits can be most readily taught and accepted — in childhood.

This approach focuses on interweaving health and safety information into the school curriculum of all grades, starting with kindergarten. Such information would extend into the need for periodic checkups and prompt medical care as well as facts on safe practices at work, school, home and play. Various foundations may be willing to contribute funds for the preparation of special materials both for the teachers and the children at various educational levels, geared to the life experiences of these age groups. The educational aids may also encompass role-playing as an effective technique in driving across healthful and safe living. Likewise, health and safety clubs should be organized in each grade, with emphasis on an "It's smart to be healthy and safe" theme, based on the motivation of social acceptability.

Special materials, with increasing emphasis on the occupational aspects, should be prepared and distributed to secondary schools, colleges, vocational schools, land-grant colleges and professional schools, principally medical, engineering, nursing and chemical.

As part of a high school counseling program, provision may be made for physical examinations to determine the physical as well as mental qualifications of students for the occupations in which they are interested. In contrast to industrial workers, nonplant workers do not have the benefit of the equivalent of a preplacement physical examination.

Vermont Alumni Pledge Support

Forty young M.D.'s, averaging in age 24 years, have pledged themselves to contribute an estimated $80,000 to their alma mater, the medical college of the University of Vermont.

These young men comprise the total membership of the Class of 1959. Their pledges are for life. They inaugurate a program that is expected eventually to bring $150,000 a year in gifts.

The money will be contributed to the Century Club of the University of Vermont College of Medicine, of which the forty new graduates became charter members. For the next nine years, their contributions will be $1 each for each year after graduation up to $9. Beginning with the tenth year, the contribution will be $100 each per year.

The $80,000 estimate is based on the assumption of an average of 20 years at $100 a year. Gifts may be greater than $100 a year, and all future classes are expected to join, thus promising each year additional potential $80,000 contributions. Also the 1,500 Vermont Medical College alumni now in practice are all eligible to join.

INDUSTRIAL HEALTH CLINICS

• LEONARD ARLING, M.D.
Northwest Industrial Clinic
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Our future medical practice will be influenced by the manner in which we cope with our responsibility to the two-thirds of the national labor force which is employed in small plants.

The prime requisite of any industrial health program is a qualified physician with a sincere interest in occupational medicine and in the served employees. His interest must be coupled with a planned program of preventive care at the plant and employee level. It should be coordinated with private and official health agencies in order to secure maximum effectiveness for the employee, his family and the community. This also helps to provide the employer with a prosperous, wholesome industrial climate.

Anyone responsible for the development or supervision of the health program of an employed group should read several concise "guides" which have been prepared by the Council on Industrial Health of the American Medical Association:

"Scope, Objectives and Functions of Occupational Health Programs"

"Guiding Principles of Medical Examinations in Industry"

"Guiding Principles of Occupational Medicine"

"Guiding Principles and Procedures for Industrial Nurses." These require about one hour of concentration and may avoid weeks or months of misdirection.

Scattered locations and diversity of industrial processes performed by small working groups create difficulty and expense in our attempts to provide them with equal opportunities for health care to those available for large groups. Several means of implementing this care have been successful.

Individual doctors in the plant area provide preplacement examinations, special hazard and voluntary periodic examinations at their offices in addition to care of trauma and medical emergencies. This arrangement should include physician visits to the work area to supervise first aid or nursing services, to become acquainted with special problems, and to improve the doctors' understanding of intelligent job placement.

In-plant services of a physician on the basis of one hour per week per one hundred employees are combined with part or full time nursing services. Clerical, sales or office employees will require less physician time than hazardous manufacturing, chemical or construction work. A competent nurse is as necessary to the conservation of the doctors' time in the plant as a competent secretary or office manager is to the chief executive of the plant. The doctor should not take over the nurse's work but assign to her all the duties which her training and license as a nurse entitle her to perform.

In 1946 Dr. Ronald F. Buchan developed the Hartford Plan which provided fairly comprehensive health care to several scattered firms of 300 to 800 employees on a contract agreement. One or more full time nurses were employed in each dispensary. Serious medical and trauma cases were referred to consultants in neighboring areas. The physician practiced full time occupational medicine with reasonable assurance of financial stability as long as he could maintain the scheduled services plus a maximum of thirty day sickness leave. Substantial savings were reported for the employers and the employees were appreciative of the health service. Minor modifications of the Hartford Plan have been used elsewhere, but none appeared to be as well organized.

Periodic health examinations from mobile trailer health services are available in some areas and are used within several large corporations that employ small work groups in scattered locations. Examples are: Phillips Petroleum Co., Humble Oil & Refining Co., Occupational Health Services, Carter Oil Co., American Brake Shoe Co.

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Larger communities can attract competent full time industrial physicians who combine their talents to provide industrial clinic facilities and in-plant medical services. This gives employed groups an opportunity for good health service regardless of their plant size. Specialized diagnostic procedures in toxicology, job evaluation for proper placement, preplacement and periodic physical examinations, desirable immunization programs, medical retirement examinations or evaluation for work beyond normal retirement age, key personnel or executive examinations, industrial ophthalmology, audiometric testing and conservation of hearing, orthopedic surgery and experienced care of trauma, physical therapy and rehabilitation, in-plant medical services and surveys of the occupational environment, are all made available in one unit. Both small and medium-sized plants and other employed groups can use this service more successfully than attempting to duplicate the entire medical unit.

Planned health programs can be tailored to the specific needs of the plant as indicated by survey and experience. Before those needs are determined the plant is surveyed for the usual health problems and for the specific hazards incident to its operations. Recognition of union contract provisions relating to health is essential for the cooperative effort of labor and management with the medical department. Health education is difficult, especially when many organizations are represented. Able directive leadership commanding the respect of both labor and management is essential.

Many small and some medium-sized plants maintain in-plant nursing service but prefer to use the more complete clinic facilities for their placement, periodic and special hazard examinations as well as for the care of trauma. Scheduled in-plant visits by the doctors effect time saving in the performance of examinations, health counseling and follow-up care of trauma and increase his frequency of inspection of work areas. Employees view with favor the doctor's interest in their jobs and have a greater respect for his advice.

The impossibility of providing in-plant physician's services for the majority of our small employed groups is recognized, but no group location is too small for a visit by the physician who is responsible for its health care. He should acquire adequate knowledge of the materials being handled and of the working environment. Classified information and complex compounds formed during manufacturing or chemical processing may prevent him from learning all he should about the job hazards. He can apply reasonable health precautions in nearly 100% of these jobs by securing the cooperation of supervisors and technicians who have the necessary knowledge of local problems. On the job visits by the physician have been of vital help in handling emergency patients who might have received the wrong or delayed treatment from otherwise competent doctors. Preplacement or transfer examinations can be performed more intelligently by the physician who is acquainted with the job demands and exposures. Employees will recognize his competence and fairness; therefore, some grievances will be avoided.

Desirable features of an industrial medical clinic are: (1) it should be organized specifically for industry; (2) the service should be tailored to the needs of the individual plant; (3) it should provide expedient and adequate care of occupational injury and disease; (4) emphasis should be placed on adequate physical examinations and job placement; (5) it should have flexibility of services to meet the varying needs of broadly diversified industries and of changing business cycles; (6) the personnel must have a concept of the part the medical service plays in labor-management relations, and (7) it should strive to meet the standards for industrial medical practice advocated by the Council on Industrial Health of the American Medical Association, the Industrial Medical Association, the American College of Surgeons, the American Academy of Occupational Medicine, Occupational Health Institute, the American Industrial Hygiene Association and the American Conference of Governmental Industrial Hygienists.

Environmental health standards are established by American Industrial Hygiene Association, the Manufacturing Chemists Association, the National Committee on Radiation Protection, the American Conference of Governmental Industrial Hygienists and the American Public Health Association. Much valuable work has been contributed by other private and governmental organizations most of whom support this National Health Council.

The small plants of this country represent about two-thirds of our entire labor force. Our future medical practice will be influenced by the manner in which we cope with our responsibility to these people. We must deal with individual persons, each with his own magnificently complex personality, anatomy and physiology, but we are still using relatively slow methods of examination and evaluation of each individual. Our techniques need simplification and conversion to more automatic testing, examining and reporting which will reduce the time now consumed by the doctor, nurses and auxiliary personnel. We need to spend more time on prevention if we are to reduce curative care.

The Birmingham Industrial Council

Its Role in the Health Program of Small Plants

• LEON SMELO, M.D.
Chairman, Medical Advisory Committee
Industrial Health Council
Birmingham, Alabama

An organization of private industrial and business concerns, this Council has three objectives: health education, case screening and referral of individuals to physicians of their own choice.

This report is presented to you by a physician whose quarter-century in medicine has been limited solely to the private practice and teaching of internal medicine. I cite this fact not so much to indicate to you my inadequate qualifications for participation in this program but rather to make clear that the views expressed spring from dealing with the health problems of individuals as such on a private patient-doctor relationship rather than from industrial or public health experience.

The Industrial Health Council of Birmingham, Jefferson County, Alabama originated in 1946 as an outgrowth of a meeting of civic leaders, industrial executives, public health officials and private physicians. These men recognized that for various reasons a substantial segment of the population of the district failed to share equitably in the health benefits inherent in modern medicine. This deficit particularly applied to small industries and establishments, whose entire medical program consisted of handling injuries and emergencies as they arose and whose employees for the most part seldom or never sought medical advice, to the potential or actual detriment of their own health and to the enhanced risk of their fellow workers, families and contacts. For these employees, who collectively comprised a considerable sector of the working force, an agency was envisaged and established with a two-fold purpose: first, to present and actively to prosecute a program of health education and second, to administer at regular intervals a battery of screening tests designed to sort out individuals so highly suspicious of harboring disease dangerous either to their own or to others' welfare as to justify referral to physicians of their selection for diagnostic study and appropriate therapy.

With these objectives the Industrial Health Council of Birmingham, Alabama was inaugurated with a charter membership of nine firms in April 1947, and under these objectives it has continued to operate to the present, with a membership of 166 firms and a total of 17,302 individual employees surveyed in 1958. A revised constitution and by-laws adopted in April, 1958, states, "The primary objective of the Council is that of health education, case screening and the proper referral of individuals to the physicians of their choice." It is evident the Council is an organization of private industrial and business concerns acting in a medical capacity.

The 1958 version of the constitution and by-laws indicates the correlation of administrative and medical functions which has evolved as the Council has carried on through the years. The control of the Council lies in a Board of Trustees composed of a single representative from each member firm and meeting once annually to review the affairs of the Council and to elect membership to the Board of Directors. The active management of the Council rests in its Board of Directors, consisting of 28 members, each serving overlapping terms of three years, 21 being selected from the industrial and business representatives on the Board of Trustees and seven being selected from the medical profession of Jefferson County. The Board of Directors is charged with the appointment of an Executive Director and of a Medical

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Director, respectively responsible for the administrative and medical aspects of the Council's program and collectively responsible for the development, execution and management of the entire activity of the Council.

The seven physician members of the Board of Directors consist of the County Health Officer, ex-officio, three physicians nominated by the President of the Jefferson County Medical Society and three physicians nominated by the Board of Trustees of the I.H.C. These seven physicians not only serve on the Board of Directors but also constitute a Medical Advisory Committee to whom the Medical Director submits quarterly reports and whose Chairman submits semiannual reports in person to the Board of Governors of the Jefferson County Medical Society. In addition to the seven physicians, the Medical Advisory Committee is composed of two nonphysician members chosen and designated by the Board of Directors. The constitution and by-laws of the I.H.C. specify that the Medical Advisory Committee shall make recommendations and shall approve all medical matters and promotional material. In this manner the medical aspects of the Council are held in medical hands without dominating its entire program. The membership of the Jefferson County Medical Society is given voice in and apprised of the Council's operation. Liaison between business man and doctor is thus promoted. Equally, experience has demonstrated the successful operation of the Council under two heads, the Executive and the Medical Director, without either being "Boss." The key to success is mutual respect and good will and the sincere desire to abide by and fulfill the objectives of the Council for the benefit of the employees of its component firms.

While the educational features of the I.H.C. ultimately may prove to be of great value, the heart of its present program and its appeal to employer and employee alike lie in the preventive medicine feature of its multiphasic screening tests. Annually these include: (1) measurement of weight and height, (2) chest x-ray, (3) measurement of blood pressure, (4) performance of a urinalysis, (5) determination of blood sugar, (6) determination of blood hemoglobin, (7) serologic test for syphilis, (8) electrocardiogram in individuals aged 40 or over, (9) visual testing and (10) auditory testing.

Employee participation is voluntary, but encouragement to participate is promoted by guarding in strict confidence the results of the tests. Unless specifically granted permission to do otherwise the Council releases information from screening tests only to physicians designated and consulted by the employee. A further factor encouraging employee participation is the performance during working hours of the screening tests in appropriately equipped busses which follow a regular schedule in annually visiting member plants. This mode of operation utilizes with maximum efficiency the technical resources and personnel of the Council and reduces to a minimum the unit cost per test. Coincident with the performance of tests, educational leaflets are distributed, explaining the reasons for the tests, offering basic information with respect to diseases related to the tests and emphasizing that the I.H.C. conducts a screening program, not a thorough medical examination. In all informational material the underlying philosophy is presented that each employee should have a personal physician and should be examined at least once a year. Correspondingly, each plant is encouraged to develop a sound occupational health program.

When the field tests of a plant survey are completed, they are evaluated by the I.H.C. Medical Director and, dependent upon his judgment, certain employees are called back to the I.H.C. office for recheck. Finally, employees with suspicious findings, whether on initial testing or after recheck, are notified by letter and advised to consult a physician. Each firm whose employees have been surveyed is rendered a report in toto without individual names. Only in the case of possible infectious disease is an employer or his medical department informed on an individual basis.

The I.H.C. with its screening and educational programs thus functions as an adjunct to the practice of occupational and of private medicine, but the Council itself is not engaged in either field. For a limited period the Medical Director of the I.H.C. did perform physical examinations for pre-employment evaluation and upon employees called in for recheck. This practice was stopped not only because objection was voiced by the medical profession but because Alabama law forbids a corporation to engage in medical practice as its primary function and because the activities in question clearly were outside the aims and objectives for which the Council was established.

In its operation the Council affords facilities and services to small industrial plants and establishments and reaches employees with tests which in all likelihood would not otherwise be provided or obtained. In this manner it promotes better individual and community health. In 1958, 17,302 employees from 166 firms were surveyed. Of these employees 665 or 3.8% of the total surveyed were referred to physicians for further study. An additional 1,194 employees were found with previously detected abnormalities and were encouraged to continue under or to return to medical care. Of the 665 employees

referred to physicians, reports on the case disposition were received from the doctor in 359 instances. In 226 of these 359 cases, the physician consulted confirmed the suspicion of abnormality, established a diagnosis and instituted treatment. During the six months period from July to December 1958, 124 reports from physicians revealed the discovery of five new cases of tuberculosis, seven of nontubercular chest disease, eight of cardiovascular disease, three of hypertension, six of venereal disease, twenty of anemia and four of diabetes. These figures indicate to some degree the health significance of the I.H.C. program. Its cost to member firms is $3.65 per employee surveyed. This fee permits financial solvency of the Council but is inadequate to provide for replacement of equipment and the full salary of its executive director. Upward revision of the fee per employee screened is currently under consideration. At this writing the I.H.C. in the main enjoys the approval of the Jefferson County Medical Society, the appreciative participation of employees and warm support of member firms.

First Lead Paint Death In 1959

The first child to die of lead paint poisoning in Baltimore in the year 1959 was a one-and-a-half-year-old boy who lived in the west central section of the city. The child was admitted to the University of Maryland Hospital on March 25 and died the following day. The mother stated that the family had moved the previous week into a new apartment which was freshly painted and she had seen the child licking this wet paint from his hands. She had also seen him eating plaster from the wall in their previous residence for a period of about three months. She brought him to the hospital after the child began vomiting and had convulsions. The Health Department blood lead laboratory test showed 0.41 milligrams of lead per 100 grams of the child's blood on the day before death. More than 0.05 milligrams is considered abnormal and significant. Lead was also found in the paint at both residences, but the fresh paint at the second residence was found to be lead free.

This was the first case of lead paint poisoning reported in 1959. The first lead paint death for 1958 was reported on March 19, 1958 and there had been three prior nonfatal cases in 1958. A total of 133 cases of lead paint poisoning, the highest on record, was reported in 1958 and 10 of these children died.

The City Health Department is making every effort to prevent lead paint poisoning in Baltimore children. In every instance where there is a case of lead paint poisoning or a suspect case the family is separated from the paint as promptly as possible, either by removal of the paint or by moving the family from the dwelling. The earlier residence in this case has been posted by the Commissioner of Health under order to vacate pursuant to the City Ordinance on the Hygiene of Housing because it was found to be unfit for human habitation and dangerous to life and health. Since 1931 when the City Health Department began to keep records of this illness there have been 735 cases and 123 deaths. —*Baltimore Health News*, April-May, 1959.

What Have
VOLUNTARY HEALTH AGENCIES
To Offer?

● JAMES E. PERKINS, M.D.
Managing Director
National Tuberculosis Association

The programs of voluntary health agencies are supported by five principal pillars: fact finding, education, demonstration, legislation and evaluation.

My immediate reaction to the question, "Who Pays for What?" was that the voluntary health agency really has a very slight role to play in paying for occupational health programs. I believe this is still true so far as continuous financial support of, say, industrial health programs is concerned, but further reflection convinced me that indirectly voluntary health agencies may play a very significant role in seeing that adequate industrial health programs are properly established and adequately financed, as well as temporarily paying for or actually providing certain specialized services to workers in industry of importance to their health. They also indirectly affect health problems within industry through their helping to solve health problems in the home and in the community, which are inseparably linked with health problems in the office and in the factory.

Before proceeding further, let me define what I mean when I say a voluntary health agency. I wish to restrict my use of the term not only to health agencies which are nonprofit and do not receive any tax funds for their support, but also to confine it further to the exclusion of professional societies, such as the American Medical Association. These professional societies have made and are making tremendous contributions towards the improvement of occupational health, but I believe that I should try to represent those national health agencies which through their affiliates conduct community service programs and are concerned with various individual or groups of diseases. Examples are the National Tuberculosis Association, the American Heart Association, the American Cancer Society, the National Society for Crippled Children and Adults and the National Foundation.

I note that the cover design of the program of this particular National Health Forum of the National Health Council depicts a cornice supported by five columns. This intrigued me because for some time we have been saying that the program of the voluntary health agency is supported by five principal pillars: those of fact finding, education, demonstration, legislation and evaluation.

As a voluntary health agency digs out the facts with regard to the prevalence of the disease or diseases in which it is particularly interested, it usually finds that certain occupations play a very definite role in the incidence of those particular conditions. Thus, many crippling conditions in which the numerous voluntary health agencies concerned with disabilities of various sorts are concerned find that not infrequently the crippling occurs in connection with a given industry, through industrial accidents or other causes. We in the National Tuberculosis Association long since found that exposure to silica dust in industry was a very definite predisposing factor to the development of active tuberculosis. The American Cancer Society has found that lung cancer, bladder cancer and certain other neoplasms are more prevalent among workers exposed to certain chemicals and fumes in industry. As part of their normal function, therefore, voluntary health agencies

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necessarily become interested in trying to work with labor, management and government in trying to reduce the role of these factors associated with occupation causing the diseases in which they are particularly interested.

This almost automatically leads into the other four basic aspects of the program of the voluntary health agency. Thus, education of the workers themselves, of their employers, of governmental officials and of the tax-paying public as a whole becomes a part of the program of the national health agency attempting to lessen the adverse health effects associated with various occupations found through analysis of data to be factors in the incidence of disease.

Since I am most familiar with the activities of the National Tuberculosis Association, I trust you will pardon my referring more frequently to our activities in this presentation. For decades the National Tuberculosis Association, working through its almost 3,000 state and local tuberculosis associations, have made available to industrial plants monthly industrial bulletin board posters and accompanying leaflets on many health problems affecting workers without confining our attempts solely to tuberculosis. We have found these very well received and widely used. Currently over 100,000 posters and over 300,000 accompanying leaflets are distributed by us every month. Many of these posters have been prepared by us in cooperation with other national health agencies; for example, those dealing with eye injuries in cooperation with the National Society for the Prevention of Blindness, those on mental illness in cooperation with the National Mental Health Association and those on polio vaccination with the National Foundation. I have even suggested that as more agencies have become interested in this field, perhaps the National Health Council should take over this function, but not only is the National Health Council not staffed at present to handle a problem of this magnitude, but there is the further difficulty that the National Health Council *per se* does not have local affiliates for the actual local contact with and distribution to industrial plants. This would seem to be one function, however, which the National Health Council might very well assume at some time in the future when and if it is so staffed and organized as to take on direct service programs which are of interest to many of the national health agencies which are member agencies of the National Health Council.

Although as I stated before, ordinarily it is not considered the function of a national health agency, or one of its affiliates, to continue indefinitely a purely service program, practically every such agency is interested in conducting temporary demonstrations of programs which seem to be of potential benefit, and many of these involve cooperation with industry. Again an illustration which immediately comes to mind in my own field is that of making available annual chest x-ray examinations to workers in factories and offices by many of our local affiliated tuberculosis associations through their mobile x-ray units. As a general policy we feel that this service should not be continued indefinitely but should be taken over by the local governmental health agency, or perhaps by industry itself.

As to legislation, although the actual enforcement of laws and regulations pertaining to the health of people in industry is solely the responsibility of the official governmental agency, very often it is only through the efforts of the voluntary agency that it is possible to get such legislation enacted in the first place. It is also a salutary thing for the voluntary agency to continue to keep an eye on the effectiveness of the enforcement of such legislation by the official agency, with steps being taken by the voluntary agency to improve enforcement if there occurs some laxity in this respect at a later date. Not infrequently the laws and regulations are quite adequate and the desire on the part of the official agency for proper enforcement is present, but the tax money necessary for the proper staffing of the governmental unit to properly enforce the laws and regulations is lacking. Here again, with the voluntary health agency having no political axe to grind, it can frequently be extremely helpful in getting the average citizen to realize the seriousness of the problem and marshal support through a representative group of citizens to convince the official appropriating body that it should make adequate funds available through tax sources for the proper enforcement of laws and regulations pertaining to occupational health.

The fifth pillar, "evaluation," is obvious. With conditions and problems always changing, one must constantly evaluate the current situation and alter the program according to new needs. This is particularly true with regard to industrial health. The springing up of entirely new industries, the development of new chemicals and products and the development of new processes inevitably mean the development of new toxicological and accident problems, which must be anticipated and prevented in advance if possible, or at least detected and corrected at the earliest possible moment.

Much of what I have said thus far has been oriented toward industry, but I should like to stress again what I touched upon very lightly earlier; that the activities of the voluntary health agency in reducing health problems in

the home and in the community result at the same time in reducing health problems within the plant and within the office, thus reducing the cost of treatment or other corrective measures within the plant. Thus, the marked reduction in tuberculosis within the household and within the community as a whole has markedly lessened the chance of spread of tuberculosis among fellow workers in industrial plants. The same can be said about other communicable diseases with which other national health agencies are concerned, and even with regard to many of the noncommunicable health problems, such as accident prevention and improvement of mental hygiene in the general population. Furthermore, the rehabilitation of disabled persons, which is of interest to many voluntary health agencies, and which has been promoted to a large extent through the efforts of various voluntary health agencies, has in turn resulted in making available to industry and other occupations manpower which otherwise would not only have been wasted, but would have continued to be a drain on the productiveness and economy of the community.

As we look into the future we can see many areas of continued mutual interest between the various national voluntary health agencies and management, labor and government. Some that come immediately to mind are the increasing problem of radiation hazards; the problem of the respiratory communicable diseases, which are responsible for so much absenteeism in the offices and factories and in which the National Tuberculosis Association is taking an increasing interest; the problem of air pollution inside and outside the factory; and the numerous health problems associated with the greater longevity of the population.

The past cooperation of the voluntary health agencies and management, labor, government and other groups in investigating and helping solve the problems of occupational health has been a very fruitful experience, and I am sure such cooperation will continue in the future to the benefit of all of the country's citizens.

Career and Quality

As is well-known, quality may be elusive but, on the other hand, it may crop up in the most unlikely places. The phenomenon of professional dedication and the persistent desire that burns inside some physicians to do a better job is one of the reassuring characteristics of our profession. There is almost an inevitable association between superior quality and an unstinting willingness to give time and energy to the solution of our industrial problems. I fear that many physicians evaluate a career in industry on the presumption that the work is easy, the hours short, security a certainty and the demands for professional astuteness infrequent. None of these presumptions have a consistent basis in fact. The demands that a physician be a good physician are never greater than in industry. The industrial physician needs a firm grasp of all the medical specialties. He needs to be a person with full awareness and his sense of inquiry regarding symptomatic behavior should be strong. He needs to know employees sufficiently well as well as the demands of their jobs so any deviation from their normal performance of work, health and patterns of behavior will signal the need for study. The industrial physician needs to be imaginative in his thinking; he needs the ability to communicate easily and freely with anyone on the industrial scene from top-level executives to hourly workers. Traditional and conventional programs of health education with posters and pamphlets must give way to better skills in communication by physicians, nurses and other members of the industrial medical staff.

—"Trends and Direction in Occupational Medicine," Mac Roy Gasque, M.D. From *Southern Medical Journal*, Vol. 52, No. 3; March '59 pp. 309-313.

Expectations of Management

Regarding Occupational Health

• LEO WADE, M.D.
Medical Director
Esso Standard Oil Company

Management is often unclear as to what it expects of the medical department and, by and large, has not yet learned to use the physician optimally.

A few years ago I was asked to discuss "The Problems of Industrial Health as seen by the Medical Administrator." At that time I listed what I considered to be the four major problems, two of which are pertinent to the present discussion. These are: first, "Undue emphasis upon the treatment of acute or life-threatening disease by most physicians has led many workers to expect that any good medical program in industry should provide free treatment of disease. These workers have little interest in and appreciation for other types of medical services." and second, "Management, too, is often unclear as to what it expects of the medical department, and, by and large, has not yet learned to use the physician optimally." I believe these continue to be major problems, impeding the orderly growth and development of proper occupational medical services.

We are now to discuss "The Expectations of Management Regarding Occupational Health." Perhaps it would be wise to give some thought to the possible differences between what management *does* expect and what management *should* expect. This I shall try to do as we go along.

Medicine differs from almost every other professional discipline in that it has always been of great interest to the average layman. Everyone has had one or more personal visits to the physician. These are inevitably a source of basic attitudes. Newspapers, magazines, books, radio, TV and the movies provide much information, good and bad, true and false. The sheer volume of material available and the frequency of exposure makes everyone an "authority." It is not surprising that many a lay person will express very definite opinions about medical matters even though he would be most reluctant to take any stand on a legal, engineering or theological question. These opinions vary from a complete lack of faith in the doctor to an inordinate and unrealistic faith in the possibilities of medicine.

These considerations point up the need for management to select an advisor regarding medical affairs with the same intense care given to the selection of a financial vice-president or a research director. Personal qualifications, sound training and experience, and dedication to the job are obviously fundamental. Further, the medical advisor should be used by management in the same manner as other staff advisors — his advice and guidance should be sought on all medical matters; the health of the company's employees, the possible effect of the company's operations and products on the health of the community and the consumers of its products.

It is not suggested that management should abdicate its basic responsibility for decision-making in matters having to do with health — it should not serve as a "rubber-stamp" for its medical advisor. On the contrary, matters of public and employee relations, fiscal policy, governmental codes, corporate philosophy, etc. must influence management's decision regarding medical affairs as well as about other matters. An incorrect decision, however, can be attributed in most instances to a failure of management to secure proper medical advice or a failure of the medical advisor to provide the needed advice and guidance in a clear, concise manner. One other general remark is indicated before I become specific. The best possible occupational

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medical services cannot be effective unless integrated closely with the other operations of a plant or office. Sometimes one hears a manager say he wants the occupational medical department to reduce sickness absenteeism or to reduce the frequency of accidents, etc. Such achievements are not possible without the enthusiastic cooperation of many other departments and people in any given operation. The reverse, however, is certainly true; without proper medical advice and guidance, lay management with the best possible intentions will find itself in many untenable positions whenever it tries to achieve such goals. With the preceding in mind, I believe management should expect occupational health services to help:

1. Provide a safe and healthful working environment for each and every employee;
2. Select the best "all-around" qualified candidates for employment by providing an evaluation of physical and emotional health factors which may be of consequence in the available jobs;
3. By providing emergency, first-aid medical services to employees, wherever the nature of the industrial operation justifies or requires such services, and/or these services are not readily available in the immediate plant vicinity;
4. Employees maintain a state of health compatible with high productivity and job attendance;
5. Sick and injured employees, where indicated, secure the best possible curative medical services in the community;
6. Deal constructively with medical and social problems of the employee, e.g. nonproductivity, problem drinking, partial or total permanent disability, chronic absenteeism, chronic accidentism, etc., etc.;
7. Management become or remain a good corporate citizen in areas involving health, e.g. atmospheric and water pollution, cooperation with official and nonofficial health agencies, cooperation with the health professions, participation in community activities having to do with health programs and facilities;
8. Management plan wisely in the area of social insurance and welfare by maintaining adequate records concerning disability, use of community health facilities, death, incidence or prevalence of disease, etc., etc.;
9. Management achieve a profit by not only making the above contributions, but doing so in as economical a manner as is compatible with highest ethical principles of medicine.

This is not the time nor the place to discuss the specific manner in which these objectives are to be pursued. These are the broad outlines upon which one may sketch various specific details appropriate to a particular kind or size operation. I do believe, however, these objectives are equally applicable to all varieties of industrial operations.

Manliness Versus Safety

According to Frederick J. Gaudet, M.D., Director of the Stevens Institute of Technology's Laboratory of Psychological Studies, workers may spurn safety equipment to prove their manliness. Daredevil workers often believe that using safety devices is considered "sissy stuff" by other workers. Hence, says Dr. Gaudet, the "manly" worker may resort to "irrational forms of recklessness" to prove himself. Dr. Gaudet feels that written messages and safety surveys probably do not help to change this particular worker's attitudes. "What we have to do," he says, "is to change his concept of what his fellow workers think."

Karl Menninger, M.D., of the Menninger Clinic, claims that less than 15% of all accidents are due to chance. An unconscious impulse for self-punishment lies at the root of most accidents, he says, and the "little suicide dwelling in everybody's heart" may surface during time of stress. Of all accidents, 90% occur after periods of frustration, disappointment and others forms of emotional stress.

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Where Is the Manpower to Come From?

The supply of full-time industrial physicians may suffice some years hence to allow one for every establishment with, say, 2,000 or more employees. The prospect of there being one for every establishment employing as few as 1,000 employees is remote. As for establishments with still fewer employees, in which over three-fourths of the working people of the country are employed, the occupational health service of many of these will eventually be provided by physicians engaged full-time in industrial medicine, serving several establishments each on a part-time basis. But the occupational health service of the vast majority of such establishments, certainly of those with fewer than 500 employees, will have to be provided by physicians engaged in private practice and doing industrial medicine on a part-time or on-call basis.

Accordingly, it is necessary to interest private practitioners in so serving. To this end, the attitude toward industrial medicine existing in the minds of the medical profession in general—varying from suspicion to distrust to outright hostility—will have to be corrected. This can best be accomplished by all physicians who serve industry scrupulously adhering to such rules governing this practice as those set forth in the American Medical Association's statement on "Scope, Objectives and Functions of Occupational Health Programs."

First, then, the private practitioners have to be made more kindly disposed toward industrial medicine. They will have to be acquainted with occupational health, its proper scope, objectives and functions, the need for it and the opportunities and challenges awaiting them in it. To this end there should be incorporated as soon as practicable into the undergraduate curricula of all medical schools, in their several departments, as much and as good material as possible to acquaint the students with industrial medicine. For acquainting with industrial medicine the physicians already in private practice, medical societies should organize and conduct sessions on industrial medicine at their annual meetings, and offer courses introducing physicians to this area of practice.

There will have to be devised, hopefully under the leadership of the medical society, and made known to management and to the medical profession in every community, a simple, workable system whereby the physician interested in practicing industrial medicine on some basis

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and the management desiring such service can be put in touch with each other without the physician's feeling that he may be acting or may be thought to be acting unethically.

—B. DIXON HOLLAND, M.D.

Preventive Mental Health

There are many sources of mental health problems in peoples' lives. For those employed in industry any or all of these affect his adjustment in this setting. It is not, however, industry's responsibility to treat these conditions. Industry does have a responsibility to provide preventive mental health just as it provides preventive medical care. While this sounds altruistic, it is also good dollars and cents management for the business. Several different approaches have been taken to meet this problem, the approach depending on the theoretical assumptions. We believe that the optimal approach is to focus on the working climate. As this is improved, two general results are expected: (1) the problems generated in extra-industrial settings will be minimized and (2) we will be better able to avoid many plant situations which would create problems or aggravate any already existent conditions.

Several approaches are taken to accomplish our objective of an improved industrial climate. These are: (1) education, (2) consultation, (3) measurement and (4) research. Each of these will be discussed. Since our greatest emphases are on education and consultations, these will be most fully developed.

The educative efforts are mainly directed at members of management, since these are the people who not only set but implement policy and, therefore, can significantly affect climate. Three courses are presented, each designed to provide a slightly different emphasis, but integrated in their purposes. The first is called understanding people and is essentially an orientation course. It stimulates interest and provides some tools for modification of attitude and approach to handling people. A "Self-Analysis Experiment," on a voluntary basis, accompanies this to give each person a different view of his personality. The second course is on interviewing techniques. It provides a skill which is often lacking, emphasizes the interplay of personality in interpersonal and group relationships, focuses on the individual differences in perception and facilitates the ability to communicate. A new course will soon be initiated which will be called "A Seminar in Self-Understanding." It will attempt to provide depth of awareness of these variables, with better integration of concepts, and allow for attitude changes to more favorable ones for the climate we are striving to develop. This is not a therapeutic endeavor and will maintain a heavy emphasis on the practical work situation. Other educative efforts include talks to plant groups, health bulletins which have plant-wide distribution, articles in other plant publications and the development of illustrative material on mental health through filmstrips.

Consultations include a variety of activities. Major among these, from the standpoint of climate emphasis, are the services to management on the psychological implications of management decisions. This occurs in somewhat the same manner as with our legal staff, although on a much more limited basis. Whether to introduce some change in plant procedure, when to do so, and how to best accomplish it, are examples. Assistance is sought in determining state of morale, both plant-wide and in selected groups, and recommendations can be given. Personnel problems are another major focus. Other services include requests for individual counseling. These vary considerably but are concerned with vocational direction, work adjustment, problems in supervision, marital and family problems, etc. Psychological testing is frequently used and some personal counseling is provided. Many referrals are made to community resources.

Measurements are chiefly two-fold in nature. One focus is on the program's effectiveness. This, of course, leaves much to be desired but we have developed some indices. The other is a pre-employment testing program to screen new applicants. Here, too, we are still developing adequate instruments. We have some interesting leads, but validation is our major problem.

With regard to research, I believe some significant work could be done on the nature of mental health problems, particularly in relation to the industrial setting.

—JAMES C. CONANT, Ph.D.

Presented at 1959 National Health Forum, March 17-19, Chicago, Illinois.

Industrial Medicine and Surgery must have several copies of the March, 1958, issue to complete its commitments to medical libraries and research centers for bound copies. If you no longer need your *Industrial Medicine and Surgery* journal for March, 1958, please mail it to Industrial Medicine and Surgery, P. O. Box 44-306, Miami 44, Florida. Mail it at the "printed matter rate" and we pay the postage, of course.

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emotional disturbances need

only *one* tranquilizer

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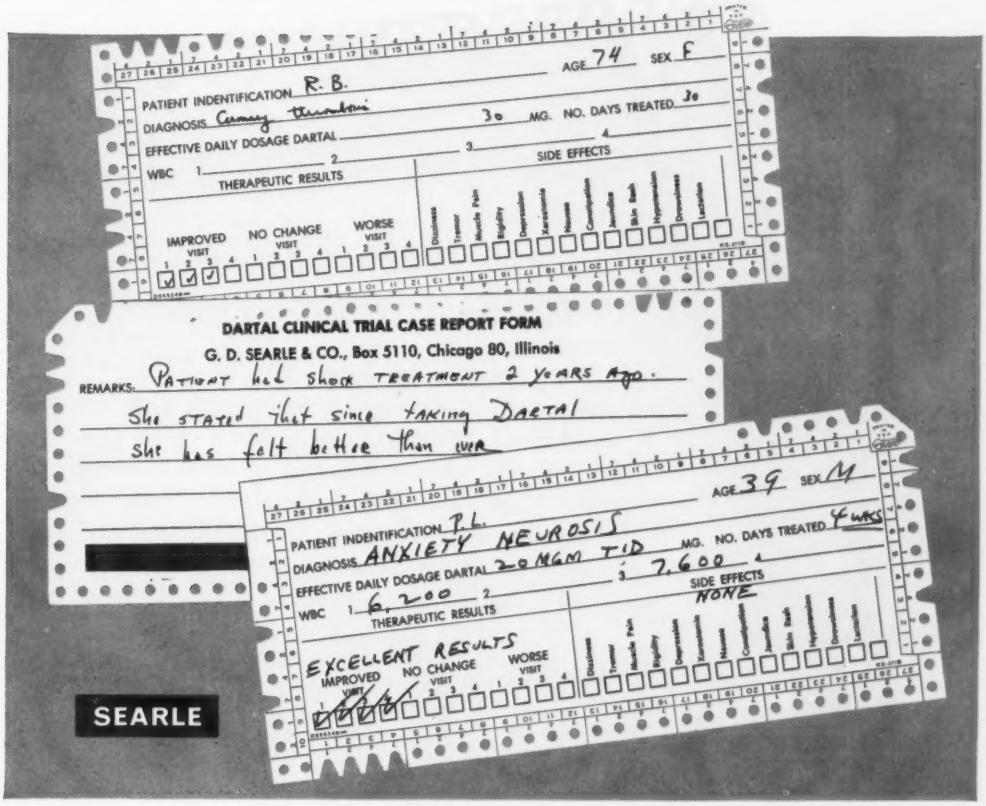
(thiopropazate dihydrochloride)

Because of its unusually numerous therapeutic indications and broad range of therapeutic activity, DARTAL is an outstanding tranquilizer for general use.

Dartal produced consistent results not only under controlled clinical conditions but also under conditions of everyday office practice.

	Diagnosis	Number of Patients	Number Improved
Reports from office trials by 156 physicians	Anxiety and Tension States	476	321
	Duodenal Ulcer	14	11
	Irritable Colon (including spastic constipation)	13	8
	Menopausal Syndrome	40	28
	Hypertensive Cardiovascular Disease	14	13

with low dosage: Only one tablet of 2 or 5 or 10 mg. t.i.d.
with relative safety: Evidence indicates that Dartal is not icterogenic.


PATIENT INDENTIFICATION R. B.
AGE 74 SEX F
DIAGNOSIS Coronary thrombosis
EFFECTIVE DAILY DOSAGE DARTAL 30 MG. NO. DAYS TREATED 30
WBC
THERAPEUTIC RESULTS
SIDE EFFECTS
IMPROVED VISIT
NO CHANGE VISIT
WORSE VISIT
DARTAL CLINICAL TRIAL CASE REPORT FORM
G. D. SEARLE & CO., Box 5110, Chicago 80, Illinois
REMARKS: PATIENT had shock TREATMENT 2 YEARS AGO.
She STATED that since taking DARTAL
she has felt better than ever
PATIENT INDENTIFICATION P. L.
AGE 39 SEX M
DIAGNOSIS ANXIETY NEUROSIS
EFFECTIVE DAILY DOSAGE DARTAL 20 MGM TID MG. NO. DAYS TREATED 4 WKS
WBC 6,200 7,600
THERAPEUTIC RESULTS
SIDE EFFECTS NONE
EXCELLENT RESULTS
IMPROVED VISIT
NO CHANGE VISIT
WORSE VISIT
SEARLE

More effective than aspirin

. . . to reduce children's fevers

Better total effect in pain-relief than aspirin or buffered aspirin

Pharmacological tests have demonstrated that one of the components in Anacin (acetophenetidin) is superior to aspirin in febrifugal activity by a ratio of 5 to 3. Hence, aspirin has only 60% of the fever-reducing action of acetophenetidin.[1] Anacin Tablets also exert a *better total effect* in pain-relief because they not only ameliorate the pain but also allay nervous tension, restlessness and depression. Anacin leaves patients comfortably relaxed. There are no gastric upsets or side effects.

ANACIN®

WHITEHALL LABORATORIES
NEW YORK, N. Y.

Reference: 1. Brownlee, George D.: *A Comparison of the Antipyretic Activity and Toxicity of Phenacetin and Aspirin*, Quar. J. of Pharmacy and Pharmacology, 10:609-620.

COMMENT AND OPINION

Where's He Getting the Stuff?

The mystery of the tipsy teetotaler was solved by a Grand Rapids, Michigan, health officer. The worker was getting a jag on at work, but couldn't figure out why. The boss threatened to fire him, his wife to leave him. Health department investigators discovered the man worked with trichlorethylene, an industrial solvent with intoxicating fumes. Ventilation sobered the worker up, saved his job and marriage.

—*Industrial Relations News*, April 24, 1959.

Breathe Deeply

A state-wide study of silicosis and chest diseases among coal miners has been launched in Pennsylvania under the direction of Jan Lieben, M.D., Director of the State Department of Health, Division of Occupational Health. The department hopes to include every coal miner in Pennsylvania, in both the soft coal and hard coal fields, in order to determine the extent of chest diseases, both occupational and otherwise, among Pennsylvania miners. The tests are also open to all officials and supervisory employees of the mining companies, as well as to retired miners. Examinations include chest x-ray, vital capacity test and occupational history.

Commenting on the survey, Dr. Lieben said that miners of all ages should take the tests: "It is a fallacy to believe that silicosis hits only those who have worked in the mines for a lifetime. Many younger persons show early x-ray changes indicating silicosis."

—*Johnstown* (Pa.) *Tribune-Democrat*, May 9, 1959.

Up in the Air

To rule arbitrarily that no person with heart disease, diabetes or a psychoneurotic condition should be allowed to fly is wrong. That is the theme of scores of letters sent to the Federal Aviation Agency. Physicians as well as pilots are voicing objection to tightening of physical standards.

Overwhelming opposition also is being registered with FAA to its proposal that none but designated medical examiners be allowed to pass physical qualifications of private and student pilots (Class III).

FAA's medical department is not and won't be inclined to grant waivers for new pilots, or fliers seeking to renew their licenses, whose medical histories show coronary disease, diabetes or psychiatric problems. But stricter rules, if adopted, won't preclude certification of airmen with static disabilities—loss of an eye or a limb, for example.

Civil Aviation Medical Association and Aerospace Medical Association are squarely behind the rule

PSORIASIS

distressing to the patient

perplexing to the doctor

RIASOL®

clinically tested ▸
ethically promoted ▸
safe and effective ▸
easy to use ▸
maximum assurance ▸
against recurrence and adverse reactions

WRITE for PROFESSIONAL SAMPLE and LITERATURE

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at pharmacies or direct
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COMPOSITION
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changes, but Flying Physicians Association, with membership of 1,600, is flatly opposed to the rule changes as they now are phrased.

"We have some designated medical examiners who don't have the least idea of what it takes to be a pilot," Dr. Charles M. Starr, president-elect of FPA, wrote to FAA. "They won't even ride in a plane, yet they are giving examinations to prospective pilots."

From a small town in Illinois, a physician wrote: "Improving the quality of the examination will not lessen the accident rate. Faulty judgment will do more damage than a faulty physical machine. Judgment is the area to be developed."

Legal and medical personnel of Federal Aviation Agency are in the midst of sifting the comments. A decision on the new rules is expected before the end of June. —*Washington Stethoscope*, May 30, 1959.

Mental Ills

Absenteeism, accidents, alcoholism and compulsory retirement are the major psychiatric problems in industry, according to Gene L. Usdin, M.D., Senior Psychiatrist at Touro Infirmary, New Orleans, La. A study by the Canadian Telephone Company showed that 15% of employees were responsible for 70% of the disability sick absence, Dr. Usdin reported in his speech at a recent meeting of the Louisiana Association for Mental Health. "There is such a thing as absenteeism-proneness," he added.

Dr. Usdin quoted statistics showing that alcohol is responsible for 1500 fatal accidents at work each year, and that the alcoholic averages a loss of 22 working days per year. Compulsory retirement is harmful to the employer as well as the employee, he said, as it leads to the loss of many years of competent work.

—*New Orleans*, (La.) *Times-Picayune*, April 22, 1959.

Health Wanted

Advertising executives consider their profession a health hazard, according to a survey conducted by *Printers' Ink*. In the May issue, the magazine reports that 97% of 376 agency men and advertising executives answering a questionnaire believe that their personal health is in jeopardy because of daily "occupational health hazards." The most frequently named hazards were pressure or tension, described by some as worry or insecurity, heart trouble, ulcers, overeating and drinking, stomach disorders, fatigue, poor sleep, long and irregular hours, lack of exercise.

Tension was rated as the most serious hazard by 53% of the agency men and 28% called it the second most serious. There was slightly less fear of tension by company advertising men with 45% naming it first and 26% second. The next most frequent hazard listed was heart trouble, named first or second by 31% of the agency men and by more than 25% of the company men.

—*Chicago* (Ill.) *Tribune*, May 18, 1959.

High-Speed . . . . . . DEPENDABLE
PRESSURE STEAM STERILIZATION

AMERICAN STERILIZER
613-R PORTABLE DYNACLAVE

• The low cost, high performing American 613-R Dynaclave assures positive sterilization with pressure steam at 250°F. or 270°F. It is fast, reaching 270° F. in approximately seven minutes.

Operation is fully automatic with selective sterilizing cycles from 3 to 60 minutes. Cools and dries instruments or supplies by exhausting steam and residual water back into water reservoir—NOT into room.

The 613-R, with greater capacity, accommodates three large trays (6″ x 13″). Handsome, all stainless steel construction is durable and easy to clean. Other features include a Safety-Lock Door, Adjustable Thermostat and Accurate Temperature Gauge. Automatically burn-out proof.

See your authorized American Sterilizer dealer or write for Bulletin DC-410.

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IN CANADA: The American Sterilizer Company of Canada Limited, Brampton, Ontario

relieves

ITCHING OF ALLERGIC REACTIONS

...found effective
in 77% of such cases

Temaril® Tablets
Syrup
brand of trimeprazine

relieves itching

Smith Kline & French Laboratories

You'll Have to Talk Louder

Noise can affect employees' throats, said David W. Brewer, M.D., at a New York State Medical Society meeting in Buffalo. Workers in noisy factories and offices often develop a sore throat, hoarseness and a cough, Dr. Brewer said. Throat specialists report that strain from talking over noise can result in actual damage to vocal cords.

—*Industrial Relations News*, May 23, 1959.

Keep It Cool

A study by the General Services Administration of the federal government in Houston, Texas, disclosed that the work output of employees in air-conditioned space is greater, on the average, by 9.5% than that of employees in similar working quarters not air-conditioned. The five month study also showed that in the nonair-conditioned area, the absenteeism was 2.5% higher than in the air-conditioned space. The GSA arrived at these findings by studying federal employees working in a wing type structure. One wing was air-conditioned, the other was cooled only by fans.

Two test groups of employees were selected, each group divided equally between men and women. Average age of the air-conditioned group was 21.25 years and of the other 21.51 years. The test was conducted from May through September with the air-conditioned group working in 75 degree temperature. —*Houston* (Texas) *Chronicle*, May 27, 1959.

Nurse just tears this new
foil suture packet open
to give you stronger,
more pliable surgical gut.
It's sterilized by electron beam.

ETHICON®

Cancer Award

The first cancer death award in many years under the Colorado Workmen's Compensation Act has been made to the survivors of a Greeley, Colorado truck driver. According to the deceased, in a hearing shortly before his death, the cancer was caused by an injury to his leg while he was driving a truck to Wyoming.

Richard E. Moss, Industrial Commission referee, said the truck driver had worn a special protective bandage on the leg since it was badly burned in a fire in 1942. Skin was grafted to the leg in 1947, and apart from wearing the bandage and being careful to avoid further injury to the leg, there was no further difficulty, until the truck driver accidently peeled off much of the skin graft when he scraped his leg on the runningboard of his truck.

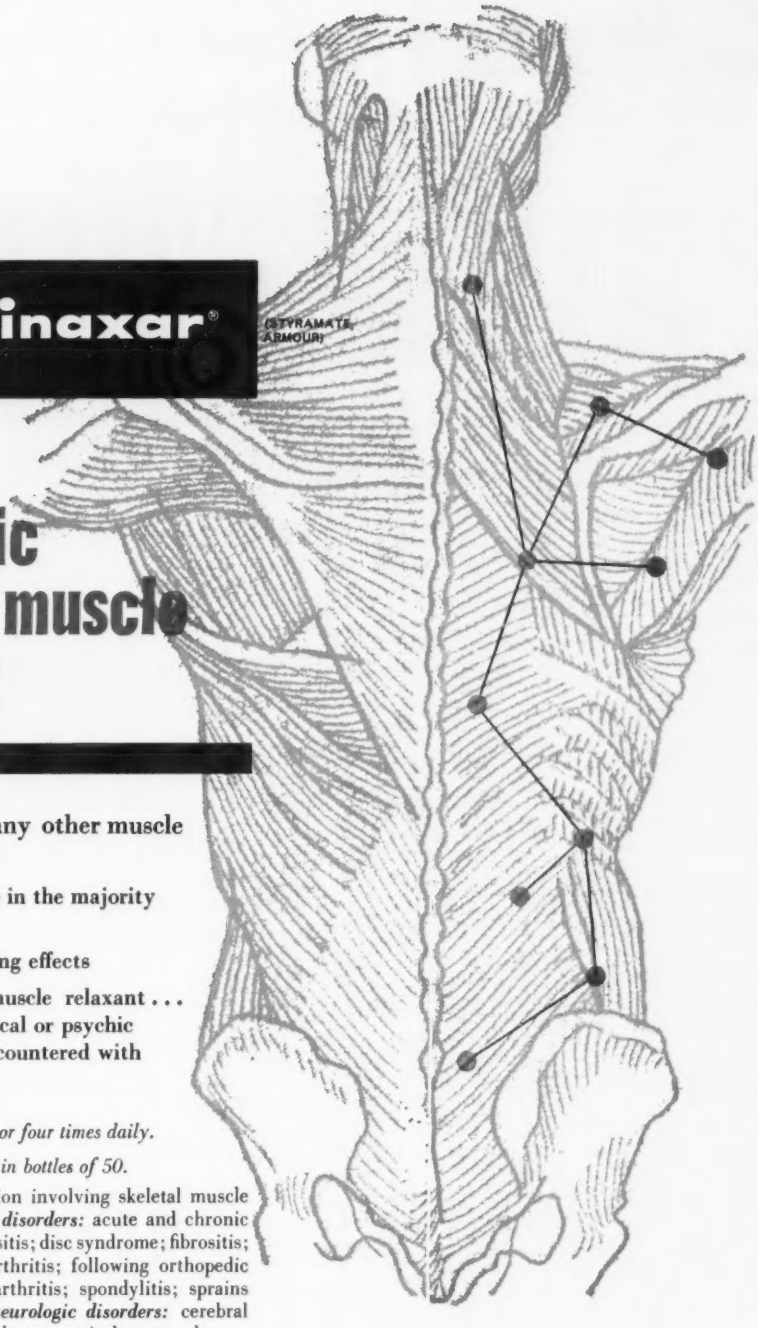
In spite of medication given shortly after the accident, within a few weeks a cancer had grown so rapidly that the leg was amputated at the knee. Several months later the leg was amputated at the hip and the cancer had spread into the abdomen.

The insurance carrier paid the claimant weekly compensation until his death, plus medical and funeral benefits to his family. The carrier, however, is contesting the cash award of $11,466 on the contention that a single injury cannot, of itself, cause cancer. —*Denver* (Col.) *Post*, April 23, 1959.

rely on

Sinaxar® (STYRAMATE, ARMOUR)

a specific skeletal muscle relaxant



Chemically unlike any other muscle relaxant, Sinaxar is

- consistently effective in the majority of cases
- long acting: no fleeting effects
- purely a skeletal muscle relaxant . . . free of adverse physical or psychic effects frequently encountered with tranquilizers

DOSAGE: *Two tablets three or four times daily.*

SUPPLIED: *200 mg. tablets in bottles of 50.*

INDICATIONS: Any condition involving skeletal muscle spasm, as ***musculoskeletal disorders:*** acute and chronic back ache; arthritides; bursitis; disc syndrome; fibrositis; myalgia; myositis; osteoarthritis; following orthopedic procedures; rheumatoid arthritis; spondylitis; sprains and strains; torticollis; ***neurologic disorders:*** cerebral palsy; cerebrovascular accidents; cervical root syndrome; multiple sclerosis.

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Medical Director: M.D., Univ of Wisc; 6 yrs, med dir & consultant, lrge, nationally-known co; also, Clinical Instructor, Indus Med, & Lecturer, Occupl Hlth, Univ Med Sch, seeks Med Dir, lrge institution, Midwest, Northeast or East.

Medical Director: 4 yrs, medical ofc, USAC; past ten yrs, Asst Med Dir, very lge co—good position but offers no advancemt; seeks Med Dirshp, lge eastern corp; Middle 40's; Diplomate, Preventive Medicine.

Medical Director: MPH; Certified, Occupational Med; 3 yrs, private practice; 4 yrs, Capt, Med Corp; sevl yrs, assoc Exam'g Phys, Hlth Dept; 2 yrs, lge corp, Med Dir; seeks Eastern locality —prefs N.Y., N.J., or Connecticut.

Medical Director: Fifteen years, private, general practice; few years as phy, large co; would pref southern location.

Medical Director or Assistant Medical Director: 1 yr, Int Med res; 5 yrs, Assoc Phys-Med Dir, 3 plants of lge, nationally-known co; 1 yr, fellow, Harvard School of PH, includ'g Ind Med, Atomic Energy; 1 yr, priv pract; any location, pref SW; late 30's.

Staff Physician: 3 yrs, private, general practice; 1½ yrs, staff, railroad; prefer foreign job; if U.S., South or SW; age 33.

Staff Physician: Graduate, Hahneman Med; 5 yrs, priv pract; 2½ yrs, hosp phy & psy; 3½ yrs, phy—some publ hlth wk; seeks Indus position; desires Ohio, perhaps foreign appointment; late 30's.

Staff Physician: 2 years, Director, Blood & Plasma center; three-and-one-half years, private genl practice; 3 yrs, Med Ofc, USAF; seeks Indus Med in SE, SW or Calif.

Staff Physician: Graduate, Rush Med; 13 yrs, very successful private, genl & surg pract; AAGP; several yrs, flight surg, USAF; prefs indus med w/regular hrs; no locality preference; middle 40's.

Staff Physician: Interested indus post leading to Med Directorship; 10 yrs, private, general practice including 7 yrs as Medical Examiner, lge electric mfgr co; capable genl & ortho surg; any locality; early 40's.

Staff Physician: A.B., Northern University three years, private, general practice; prefers Indus position; West or Northwest; Age 33.

POSITIONS OPEN

INDUSTRIAL MEDICINE: (a) Foreign; GP or Internist; career post; Amer co, 10,000 emplys, Asian country; excl facils, 500 bd hsp; ample sal cover'g all living expenses, includg house & servants, plus $450 mo personal savings & $200 mo retirement fund. (b) Dipl, Occupational or Internal Med; Chief; Clinical & Adm duties; lge co; semi-heavy indus; $15,000 upwards; PacNW. (c) Asst Indus Phys; all phases, Indus Med; oil co; $12,000 plus fringe benefits; regular hrs; SW. (d) Med Dir; able plan, coordinate rsrch toxological studies; to $15,000; leading co; N.Y. State. (e) Trnd, Int Med; staff phy; to $16,000; oppor med schl tchg; nr Pittsburgh. (f) Trnd, Indus Med; assn w/indus surg, AAGP; indus area 70,000; $12,000, later %; Ohio. (g) Serve lge co (1300 emply) use clinic equipment, no cost; per capita or straight fee basis; oppor some private pract; MW. (h) Med Dir; 85 bd, JCAH hsp, owned by well-known, "soft-goods" mfg. co. (2,000 people) which owns hsp; excel oppor adm & clinical wk; fee basis w/guarantee. (i) Join 2 man indus grp; tremendous practice; $12,000 or more; Los Angeles. (j) Join clinic grp —no other Indus Med phys; serv co having 3,000 emplys; about $12,000; West North Central. (k) Hd Indus Med dept; new post; 10 man group; $12,000 or more; not too far from very lge city, Midwest.

Fast, Continued Relief of Sunburn Pain

ANTISEPTIC • ANALGESIC

FOILLE®

LIQUID, OINTMENT AND FIRST AID SPRAY
For
Sunburn • Burns
Cuts • Abrasions
Local Skin Irritations • Insect Bites

FOILLE antiseptic-analgesic is a dependable, convenient, surgical-type dressing which has won wide use and acceptance by Doctors, Hospitals and Industrial Plant Clinics over a period of twenty years.

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Index of Advertisers

American Cancer Society . . . 40
American Cyanamid Co. . . 2, 32
American Sterilizer Co. 46
Armour Pharmaceutical 20, 41, 49
Arnar-Stone Laboratories . . . 21
Bristol-Meyers Co. 16
Carbisulphoil Co. 50
Chesebrough-Pond's, Inc. . . . 31
Desitin Chemical Co. 22
Doho Chemical Corp. 29
Dome Chemical Co., Inc. . . . 17
Eaton Laboratories 52
Ethicon, Inc. 48
Fleet Co., C. B. 13
Lilly & Co., Eli 42
McNeil Laboratories, Inc. . . . . 10, 11, 30, 3rd cover
Parke, Davis & Co. 35
Picker X-Ray Corp. 5
Riker Laboratories, Inc. . . . . 2nd cover
Robins Co., Inc., A. H. 36
Roerig & Co., J. B. 18
Sanborn Co. 26
Schering Corp. 1, 19, 25
Searle & Co., G. D. 43
Shield Laboratories 45
Smith, Kline & French Laboratories 9, 14, 15, 47
Squibb & Sons, E. R. 24, 34
Wallace Laboratories 12, 33, 38, 39, 4th cover
Warner-Chilcott Laboratories, Inc. 7, 51
White Laboratories 37
Whitehall Laboratories . . 28, 44
Winthrop Laboratories 27
Woodward Medical Personnel Bureau 50
Wyeth Laboratories, Inc. 23

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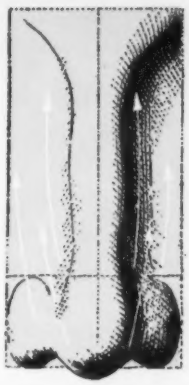
controls allergic factors — eliminates itching and sneezing with antihistaminic Thonzylamine HCl

spreads almost instantly

penetrates mucous barrier



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decongests without rebound congestion

safe — no pediatric dosage form is needed

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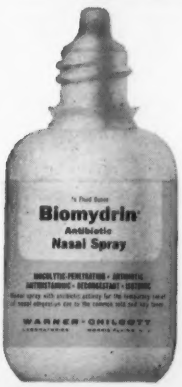

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15 ml. atomizer and dropper bottle.

Also, **Biomydrin® F nasal spray** with hydrocortisone alcohol 0.02%—useful in the most stubborn cases of edema and inflammation. 15 ml. atomizer.

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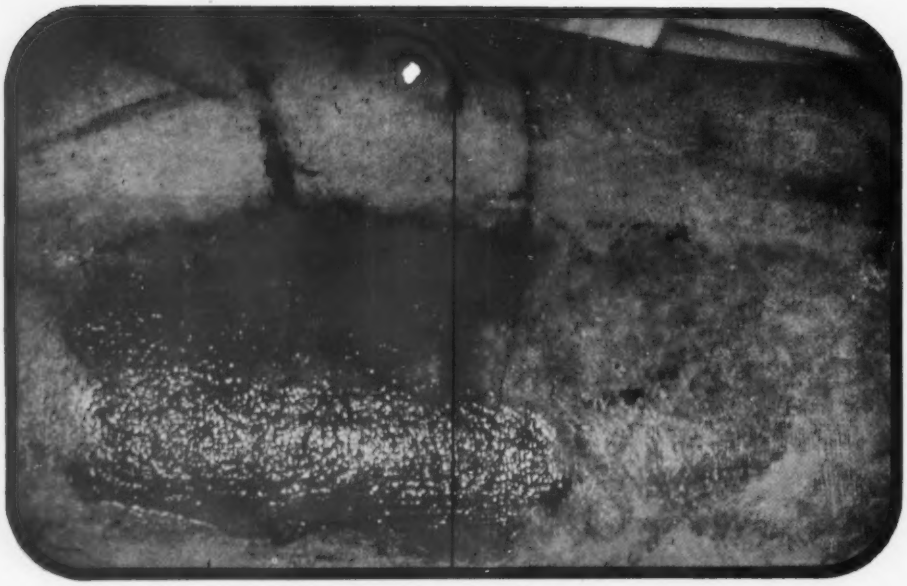
BIOMYDRIN®

nasal spray/drops



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petrolatum gauze—still largely granulation tissue | FURACIN gauze—completely epithelialized

OBJECTIVE EVIDENCE OF SUPERIOR WOUND HEALING

was obtained in a quantitative study of 50 donor sites, each dressed half with FURACIN gauze, half with petrolatum gauze. Use of antibacterial FURACIN Soluble Dressing, with its water-soluble base, resulted in more rapid and complete epithelialization. No tissue maceration occurred in FURACIN-treated areas. There was no sensitization.

Jeffords, J. V., and Hagerty, R. F.: Ann. Surg. *145*:169, 1957.

FURACIN®. . . brand of nitrofurazone
the broad-range bactericide that is *gentle to tissues*

spread FURACIN Soluble Dressing: FURACIN 0.2% in water-soluble ointment-like base of polyethylene glycols.

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spray FURACIN Solution: FURACIN 0.2% in liquid vehicle of polyethylene glycols 65%, wetting agent 0.3% and water.

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Nitrofurans—a NEW *class of antimicrobials—neither antibiotics nor sulfonamides*

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PARAFLEX® + TYLENOL®

for muscle relaxation *plus* analgesia

prescribe PARAFON in low back pain—sprains—strains—rheumatic pains

Each PARAFON tablet contains:
PARAFLEX® Chlorzoxazone‡ . . 125 mg.
Specific for skeletal muscle spasm
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The analgesic preferred in musculoskeletal pain

Supplied: Tablets, scored, pink, bottles of 50.

Dosage: Two tablets three or four times a day.

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Each PARAFON WITH PREDNISOLONE tablet contains: PARAFLEX® Chlorzoxazone‡ 125 mg., TYLENOL® Acetaminophen 300 mg., and prednisolone 1.0 mg.

Supplied: Tablets, scored, buff colored, bottles of 36.

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70-95%*

of nervous, tense patients recovered or improved

For your patients, Miltown promptly checks emotional and muscular tension. Thus, you will make it easier for them to lead a normal family life and to carry on their usual work.

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